INTENSITY OF GROUP INTERACTION AS A FACTOR IN CHANGE IN SELF-CONCEPT AND DOGMATISM

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ABSTRACT

The present study was designed to determine what effect intensity of group counseling had upon self-concept and dogmatism change in college students.

A non-equivalent control group design was used for the study. An n of 56 male and female volunteers was secured and seven treatment groups and a control group were set up. Group members came from three sources, transfer students, students in the University Honors Program, and students using the services of the University Counseling Bureau. The experimental group received fifteen hours of group counseling while the control group received no treatment.

Six experimental hypotheses were proposed in the study. Three were concerned with a discrepancy between real and ideal self-concepts and used the Bills Index of Adjustment and Values as the measuring instrument. Three used Rokeach's Dogmatism Scale as the measuring instrument and were concerned with dogmatism change.

Two hypotheses compared the experimental group with the control group. Two hypotheses compared the three high intensity treatment groups with the three low intensity treatment groups, and two hypotheses compared the three high intensity treatment groups with the control group. The pretest, posttest mean difference scores were used in the comparison of all groups.

The Hill Interaction Matrix was used to rank the seven treatment groups in terms of intensity of group interaction. Two judges independently rated segments of audio tapes of each group. Two tests of interjudge reliability were made and considered adequate.

Analysis of the data centered around the six hypotheses. Means, using pretest posttest difference scores, were computed and one tailed t-tests at the .05 level of significance were calculated for each hypothesis. Significant differences were found in those hypotheses which were concerned with the discrepancy between real and ideal self-concept. No differences were found in dogmatism scores.

Statistically, the experimental group had less discrepancy between real and ideal self-concept at posttest than did the control group. Those groups operating at more intense levels of interaction, as measured by the Hill Interaction Matrix, had statistically less discrepancy between real and ideal self-concept than did the control group at posttest. Those groups operating at more intense levels of interaction had less discrepancy, statistically, between real and ideal self-concept at posttest than those treatment groups operating at less intense levels of interaction. Treatment groups operating at less intense levels of interaction showed change that was not statistically different from the control group.

Intensity of interaction in group counseling, as analyzed in this research, does not seem to be a factor in group members becoming less dogmatic or more open in their belief systems.

This research points out that intensity of group interaction is an important variable with regard to self-concept change in group

counseling. It was concluded that members of counseling groups which operated at less intense levels of interaction did not differ in degree of change in self-concept scores from those individuals in the control group who received no treatment.

Possible areas of future research might include replication of this study using multiple measuring instruments, longer treatment time and a long-term follow-up.

CHAPTER I

INTRODUCTION

The group movement in counseling is one of the truly amazing phenomena of the 1960's. This form of interpersonal relating has had a steady growth over the past four decades, but its greatest impetus has been in the past ten years. The history of group work, which will be presented in more detail later, shows the connection between individual counseling theory and practice, and group counseling theory and practice. Historically, group leaders generally evolved from counselors who did individual counseling. In working with groups, leaders tended to carry over the same theoretical orientation and use the same methods they found successful in individual counseling.

What is now being discovered in research dealing with group counseling is that different principles are involved and that new ways of acting, thinking, and perceiving are required on the part of group leaders which are perhaps different from those required on the part of individual counselors. This is not to say that group leaders should abandon all knowledge and experience gained prior to group counseling. It is recognized that this knowledge and experience has value to the group counselor in his understanding of groups and their members. There are, however, properties of the group which are of concern to the group counselor. Call these properties group dynamics, group process, or

group interaction, they are of paramount importance to the person who proposes to call himself a group leader. This group leader must think in group terms and in concepts about the total group and not just about individual members in the group. The group situation has unique characteristics that must be explored and used by the counselor if the potential in the group is to be realized. To do less would be doing individual counseling in a group setting.

It is important that it be realized that groups do operate at varying levels of intensity of interaction (Hill, 1965). The reasons for differences in intensity of interaction is not the question under investigation here although it is one of importance. Groups operate at different intensity levels of interaction depending upon the leader's background, the setting, and the group composition. This study is primarily concerned with the investigation of the intensity of group interaction as a factor in bringing about change in self-concept and dogmatism in group members.

The Problem

Statement of the Problem

The counselor in an educational setting has an obligation to deal as effectively as possible with the overwhelming variety of student problems. Theoretical and experimental data point to the small group setting as providing several unique therapeutic experiences which are relevant to the work done by the counselor in an educational setting. Few practitioners in group counseling work would dispute the fact that there are basic tenets involved in varying degrees in most

counseling and therapy groups. Among these are interaction, reality testing, catharsis, and spectator therapy. The question that is central to all group work is which of these basic tenets and variables in the group experience produce what kinds of outcome change in the group participants? Increasingly, group counselors have a responsibility to evaluate group counseling in terms of both process and outcome together. This study is an attempt to investigate what effect different levels of interaction in the group (process) had upon change in self-concept and dogmatism (outcome) when a comparison was made between: high and low intensity groups, and high intensity groups and a control group.

Significance of the Problem

Evidence indicates that there is an intense need for modern man to find meaning and reason for his existence, to relate at deep and significant levels with others and to actualize his potential for living fully (Thomas, 1964). This intense need to find meaning often brings frustration which influences man in all areas of his life. This frustration takes the form of alienation from society and difficulty in adjusting to the world in which we live. The feelings of frustration and alienation are seen in the movement in colleges and universities away from big activities and all-college extravaganzas to the small occasion and function where personal identity is possible (Pruitt, 1966). People in general, and students in particular, are rebelling at the depersonalization taking place in our society. The group experience, with its intimacy and feelings of belongingness, is seen by many educators as an attempt to meet the isolation of

contemporary life. This approach offers a person a place to be real, where people are accepted as they are. Its appeal is to healthy, growth-seeking individuals who sense in themselves and in others the need to have more authentic interactional experiences than regular living affords in our marketing-oriented and mechanized society (Bach, 1967a).

Theoretical and empirical evidence both point to the existence of a relationship between personality adjustment, meaning in life, and academic/professional achievement (Yeomans and Lundin, 1967; Thelen and Harris, 1968; Bonney and Gazda, 1966; Catron, 1966; Muro and Ohmacht, 1966). As a result of this relationship, there is presently a trend towards utilizing group approaches for less "sick" and more "normal" populations, using the interaction oriented approach with its emphasis on the here-and-now (Weschler, Massarik and Tannenbaum, 1962; Hall, 1967; and Hill, 1967).

Additional scientific investigations into the effects of the small group counseling approach in the college and university settings are badly needed. The turmoil and violence on college and university campuses in the 1960's give credibility to the fact that alienation from society and difficulty in adjusting to the world in which we live does exist. Whether this alienation felt on the campus is greater, deeper, or more wide-spread among more people, or whether the campus community is simply more aware of it because there are so many more people to feel the alienation than at any previous time in history is not relevant here. As one result of campus turmoil, student strife

and alienation from society, there is presently a demand for professional assistance through guidance, counseling and therapy; and this demand has become greater than the supply of competent counselors. Group counseling is seen by many people as an effective way to deal with this problem, but advocates of this approach can no longer rely upon theoretical philosophizing to prove its worth. Research presently available in group counseling is largely inconclusive and contradictory. It is hoped that this study of group interaction and outcome may help lead to a method which will be more efficient, and more economical in meeting the demands placed upon educational institutions to provide an opportunity for the individual to initiate and sustain a process of individual growth toward ever-increasing personal adequacy.

The Hypotheses

In an effort to determine the effects of different intensity levels of group interaction upon self-concept and dogmatism, these research hypotheses were proposed:

Hypothesis I

Subjects receiving group counseling in the experimental group will have significantly less discrepancy between self-concept and ideal self-concept, as measured by the Bills Index of Adjustment and Values, than will subjects in the control group when raw score differences between the pre- and post- test data are taken as a measure of change.

Rationale. Self-concept theorists believe that one cannot understand and predict human behavior without knowledge of the subject's

conscious perception of his environment, and of his self as he sees it in relation to the environment. They stress the role of the conscious self-concept in determining a person's behavior. The counseling group experience is seen as a vehicle for helping the individual change his self-concept and his way of life by:

1) providing constructive experiences which will assist the individual to feel differently about himself and others,

2) giving support or adding pressure to the individual's attempt to behave differently, and

3) giving the individual a chance to examine and analyze his impact on others as it is expressed in the group itself.

Hypothesis II

Subjects receiving group counseling in the experimental group will be significantly less dogmatic, when tested on Rokeach's Dogmatism Scale, than subjects in the control group when raw score differences between the pre- and post- test data are taken as a measure of change.

Rationale. According to Rokeach (1960) the closed minded or dogmatic individual is judged to be less able than the open minded individual to perceive logical contradictions in his thinking, to perceive authority as relative, to judge others without reference to status, and to relate to others with openness and candor.

In a group experience there is the opportunity for reciprocal feedback which has as its principal purpose bringing into conscious awareness the personality characteristics of the member, his behavior and his relationship with others. The basic group assumptions of openness, acceptance, and honesty if internalized should have the effect of making the individual less dogmatic and more open in his belief system.

Hypothesis III

Experimental groups operating at intense levels of interaction will have significantly less discrepancy between self-concept and ideal self-concept, as measured by Bills Index of Adjustment and Values, than groups operating at less intense levels of interaction when raw score differences between the pre- and post- test data are taken as a measure of change.

Hypothesis IV

Experimental groups operating at intense levels of interaction will be less dogmatic, when measured by Rokeach's Dogmatism Scale, than groups operating at less intense levels of interaction when raw score differences between the pre- and post- test data are taken as a measure of change.

Hypothesis V

Experimental groups operating at intense levels of interaction will have significantly less discrepancy between self-concept and ideal self-concept, as measured by Bills Index of Adjustment and Values, than the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

Hypothesis VI

Experimental groups operating at intense levels of interaction will be significantly less dogmatic, when tested on Rokeach's Dogmatism Scale, than the control group when raw score differences between the pre- and post- test data are taken as a measure of change.

Rationale. Bach (1966; 1967a, b, c), Stoller (1968a, b), and Hill (1965; 1967), advocates of the interaction school of group counseling, seem to feel that in order to bring out the potentials of group counseling, interaction must be maximized and participation must be spread throughout the group. The conditions leading to individual change in groups are associated with the involvement, intimacy, tension, honesty and exposure of one's real self. Hill's Interaction Matrix (HIM), an instrument used to rate group interaction, has twenty cells each of which characterizes typical behavior to be found in counseling groups. The Confrontive-Relationship cell is characterized by real involvement, intense levels of interaction and interpersonal risk taking. If interaction and participation are necessary for change and this type of behavior is reported within the Confrontive-Relationship cell in the HIM, groups operating at or near this level should effect the most change on the measurement instrument.

In order to test, statistically, the experimental hypotheses they are presented in the null form in Chapter IV.

Assumptions and Limitations

Limitations of the Study

The following limitations apply to this study:

1) The treatment of the experimental groups was limited to fifteen hours of group counseling. This amount of contact time may not be sufficient to produce the kinds of change being measured by the instruments used.

2) An additional limitation is that a long range follow-up is not included as part of this research. There may be a latent time period before individual group members can integrate change in their self-concept or belief system, into their personal lives or general outlook. A long range follow-up might be able to measure such change.

3) A further limitation is that only part of two group sessions were evaluated using the Hill Interaction Matrix.

4) In testing the groups used in this study, no assumption was made as to their equivalency on the pretest. The statistical control of pretest, posttest difference scores was used in the comparison of the groups. While this is a relatively effective control, there is still the possibility that a group which is more extreme in scores on the pretest could move further towards the mean as a function of regression.

Assumptions of the Study

The following assumptions apply to this study:

1) It was assumed that the leaders were qualified to function as group counselors.

2) It was assumed that the subjects from the various groups were equally motivated towards the experience.

3) It was assumed that the measurement instruments were valid in the context they were used.

Definitions

The following definitions are offered as a basis for common understanding of some of the terms used in this experiment.

Dogmatism--A closed way of thinking, an authoritarian outlook on life and intolerance toward those with opposing belief (Rokeach, 1960).

Group Counseling--A counseling process which allows group members, within the normal range of adjustment, to work on their specific problems and their relationship with others in a realistic, social interaction setting. It uses the collective forces of the group under the directions of a group leader, to achieve the desired results.

Self-Concept--The self as viewed by the individual, his own picture of himself along with his evaluation of this picture as measured by the Bills Index of Adjustment and Values.

Ideal Self-Concept--The self the individual would like to be as measured by the Bills Index of Adjustment and Values.

Interaction--That relationship between people in which the verbal behavior of one is stimulus to the verbal behavior of the other(s) (English and English, 1958). Interaction in this context was measured by the Hill Interaction Matrix.

Intense level of interaction--Operation of a group at or near the Confrontive-Relationship cell of the Hill Interaction Matrix. It is characterized by real involvement, intense levels of participation and interpersonal risk taking.

CHAPTER II

REVIEW OF THE LITERATURE

Any review of the literature in group counseling must immediately face the problem of adequately defining group counseling. This problem in definition is recognized in the literature (Rogers, 1967; Hill, 1967; and Zimpfer, 1968). Therefore, the term group counseling, as used in this review, is meant to subsume all the varieties of group work that have some sort of treatment or change orientation, i.e., T-Group, sensitivity group, encounter group, human relations training, etc. In addition, the terms group therapy and group counseling are used interchangeably in the historical development section of this chapter. At all other times in this dissertation, other than in this chapter, the definition of group counseling as given in Chapter I will apply.

This chapter is divided into two parts. First, a brief review of the history of group work; and second, a review of the literature dealing with group counseling at the college level.

Historical Development

The most thorough reviews of the history of group work have been presented by R. J. Corsini (1957), and William Fawcett Hill (undated). Much of this brief history comes from these two sources.

Counseling as a form of treatment arose within the realm of medicine. Medically, man is a biological organism and formerly his physical as well as his psychic life were seen as firmly rooted in his biology. Early counseling (psychotherapy), concerned itself with man's biological basis and not his values, attitudes and emotions (Hill, undated). Corsini in his exhaustive and highly informative chronicle on the origins of group therapy credits the early theories and practices of Mesmer, Sade, Camus and Freud with being important contributors to present day group counseling practice. Prior to World War I there is little evidence anyone really considered group counseling as psychotherapy. Indeed, Freudian theory and the "talking cure" of psychoanalysis was just beginning to become accepted. It is difficult to say who, during the 1920's, first grasped the essential idea that group relations under certain controlled conditions could have therapeutic value.

It was about 1922, that Alfred Adler established seminars to demonstrate to teachers his techniques of guiding children. He discovered that his counseling of the children had effects on the teacher observers. This early method of working in a group setting was later developed and refined by Rudolph Dreikers.

It was not until the work of Adler in Europe, and McDougall and many others in this country that the idea was accepted that man is a social being. As a result of the work of these early pioneers, man came to be viewed as a product of his social environment. The idea became dominant that society is the agent that forms as well as

deforms man. Man was seen not only as a biological organism, but also as a social and psychological being, with his "psychological" problems being invariably concerned with people and not the material and inanimate matter surrounding him. With this knowledge there soon came a realization that "psychological" problems and maladjustment produced by society could be treated in and by a social milieu (Hill, undated). In the field of medicine, work in this social milieu became known as group therapy. Group therapy, it was found, was beneficial for the functioning of the individual personality.

From the 1930's, more and more psychiatrists and psychologists advocating a number of different theoretical orientations, became interested in the group method and various schools of group operation modeled after individual techniques came into existence. For most group leaders the same methods were used in group therapy as had been used in individual therapy.

The early group therapy movement has had many influential and important people in its brief history. In this study, an attempt has been made to remain objective and to provide a consensus of opinion as to the influence of these early pioneers.

Joseph H. Pratt is regarded by many as the first modern group therapist. In 1906 Pratt, in a group setting, reported positive results with tubercular patients in the proper management of their disease (Pratt, 1907).

Jacob Moreno is seen by many as being probably the most important single individual in the group therapy movement (Corsini, 1957).

Moreno claims to have coined the term "group therapy" in 1931, although Burrow in 1930 used the term group analysis (Rosenbaum and Bergy, 1963). In 1942, Moreno organized the first association of group therapists, The American Society for Group Psychotherapy and Psychodrama, and became its president. In 1947, he established the journal which is today called Group Psychotherapy. Moreno sees man as being spontaneous and creative by nature, but he may become sick if he cannot use his natural endowment. Moreno uses group therapy in order to help persons discover this lost spontaneity.

Corsini (1957), credits Moreno with three major accomplishments in the group movement:

1) the introduction of a theory to account for group structure and operations,

2) the introduction of a new method of working with people in groups called psychodrama, and

3) being a tireless writer and leader in the group movement.

Another important pioneer in the field of group psychotherapy is S. R. Slavson. A prolific writer, An Introduction to Group Therapy, Analytic Group Psychotherapy, Child Psychotherapy, The Fields of Group Psychotherapy, Slavson was a prime mover in establishing the American Group Therapy Association, and was from its inception until very recently editor of the International Journal of Group Psychotherapy.

Slavson originated and developed Activity Group Therapy. It is his concept that the common elements in all sound psychotherapy are: 1) relation (transference), 2) catharsis, 3) insight, 4) reality testing, and 5) sublimation. He believes that individual psychotherapy,

although supplying the first three elements, does not supply the latter two as part of the treatment situation. Group therapy, on the other hand, supplies all five elements.

Until relatively recent times, group therapy was held in most medical and psychiatric circles to be only a specialized psychotherapeutic technique that was merely adjunctive to individual therapy. For most group leaders the same methods were used in group therapy as had been used in individual therapy. Considered to be a special tool, group therapy had many limitations.

Corsini and Rosenberg (1955) in an exhaustive study were able to consolidate the literature and research on groups. They came up with nine basic therapeutic experiences to be derived from the group encounter; some of these are found in individual counseling, others only in the group situation. The nine variables they found were: 1) acceptance, 2) ventilation, 3) reality testing, 4) intellectualization, 5) transference, 6) interaction, 7) altruism, 8) universalization, and 9) spectator therapy.

As group therapy was having its birth in the practice of its early leaders, sociologists and social psychologists were becoming increasingly concerned with the meaning of the "group" concept, both philosophically and experimentally. These behavioral scientists contributed most in the area of group dynamics, methodology and theory. Although there was a common body of data in group therapy and group dynamics, both fields remained relatively indifferent to each other for a number of years. It was only when group dynamicists began to apply their

learning to the goal of changing individual behavior, and were therefore impelled to investigate the role of personality dynamics in group formation, that contact was made (Durkin, 1964).

Sherif (1936), Newcomb (1943), Lewin, Lippitt and White (1939), all brought empirical evidence to support and sometimes refute group theory. Of all the investigators in research on group phenomena, Kurt Lewin is perhaps the most representative and best known. His well known field theory which he had applied to individuals was found to be equally applicable to groups and he was the first to use the term group dynamics. Field Theory in Social Science, which was published posthumously, explains his theory as he applied it to groups.

World War II gave great impetus both to group dynamics research and to group therapy. The military, when it came to recognize the importance of group leadership and group relationship, encouraged scientific investigation in these areas. Concurrently, the need for returning to active duty those suffering from psychological problems made recourse to the relatively new method of group therapy imperative. Psychologists were called upon by the armed forces and were able to establish their status in both therapy and research.

In addition to the group therapy and group dynamics movements, a review of the history of group counseling would be incomplete without mentioning the T-Group movement. The similarity of purpose of group therapy and sensitivity training undoubtedly reflects the effects of merging of clinical-existential and Lewinian group dynamic principles in both disciplines. Benne (Bradford, Gibb and Benne, 1964),

gives a comprehensive history of the T-Group movement. He traces its development from its genesis in the summer of 1946, and discusses the assumptions about learning in the laboratory method.

While there are obvious similarities between the T-Group and the therapy group, they differ in a number of ways. It should be noted that from the outset T-Groups were not designed to provide group therapy. T-Group leaders originally felt that no real therapeutic change could be implemented in group members in such a short period. Initially another major difference was the here-and-now focus of the T-Group which has since been generally adopted by the group therapy movement. The T-Group tends to deal with conscious and preconscious behavior rather than with unconscious motivation. Most important, the T-Group assumes that persons participating are well rather than ill (Bradford, Gibb and Benne, 1964).

As group therapy departed from the mental illness model, such a distinction between ill and well became primarily semantic. Wechsler, Massarik, and Tannenbaum (1962) feel that perhaps an encompassing theory could integrate the therapy and T-Group approach. A step towards such a theory has been given by Rogers (1965, 1967) in which he chose to combine group therapy and sensitivity training as examples of "Basic Encounter Groups." In attempting to place this problem in perspective, Cohn (1967) sees all group work as falling on a continuum between teaching and group therapy. Exactly where it falls on this continuum depends upon the personality, skill and philosophy of the counselor and upon the level of involvement of the group members.

What appears to be the fastest growing area of group work is with people who are for the most part "getting along" with the world and the people in it. This brand of group work concerns itself with the strengthening of the individual in his desire to experience people and events more fully, to know himself more intimately and accurately, and to find a more significant meaning in life.

With the merging of the T-Group, group therapy and group dynamics movement, group work has come to be seen as not merely an expedient or emergency measure, but as treatment in its own right with values not necessarily obtainable from individual counseling (Moreno, 1946; Wolf, 1949; Dreikers, 1955; Stoller, 1968a). Bach (1954) stressed this point in his book Intensive Group Psychotherapy. Bach had been Lewin's research assistant at Iowa and saw the unique advantages of group psychotherapy as being tied to the group dynamic effects first noted by Lewin. The counselor, according to Bach, must be able to recognize and utilize the group dynamic principles occurring in group counseling sessions as they occur.

Hill (1965) also makes this same point:

> . . . the conduct of group psychotherapy should be oriented towards maximizing these unique advantages. The unique aspects of group therapy are the presence of several people and the operation of group variables. Thus, the members and their individual potential must be used in the administration of the therapy and the resultant group pressures and processes must be tied into the treatment procedures. In order to bring out the potentials of group psychotherapy, interaction must be maximized and participation must be spread throughout the group (p. 16).

At this time it would be difficult to single out two or three people who have been most influential in substantiating the value of

group counseling. Some of the present leaders in theory and research are Carl Rogers, Frederick Stoller, George Bach, Thomas Hobart, George Gazda, Charles Truax, Merle Ohlsen, D. S. Zimpfer, Gratton Kemp, Marilyn Bates, Clarence Mahler, Vivian Hewer, Jack and Lorraine Gibbs, and William Fawcett Hill.

Group Counseling in Higher Education

A distinction will be made at this time between group psychotherapy and group counseling, using the basic differences given by Gazda and Larsen (1968). They make the distinction that group psychotherapy is treatment for the institutionalized individual who is not within the "normal" range of adjustment. Group psychotherapy is generally performed by medically oriented therapists; i.e., psychiatrists, psychiatric social workers and clinical psychologists. The duration and treatment is usually long-term and the intensity is often greater than group counseling.

Since most group counseling takes place in educational institutions the remainder of this review will be concerned with research in this setting. Group counseling is making tremendous strides, and one cannot pick up a professional journal without finding some reference or article on the use of groups in guidance programs. Traxler (1957) gives five reasons for the importance of what he termed group guidance:

> An important reason why there is so much attention to group work in guidance is, of course, that it saves time. . . . A second reason is that group work is naturally suited to certain kinds of guidance activity . . . instructional in character.

> . . . Third, a group approach helps an individual to discover that others have needs and problems similar to his . . . group guidance focuses collective attention on common problems, and thus it may help an individual more readily find a solution for a problem than he could if he went at it alone, even when under the guidance of a friendly, permissive counselor. A fourth reason . . . it may be used to prepare the way for individual counseling. . . . But there is a fifth reason for group work, which, in the view of many psychologists justified group activity in its own right . . . the therapeutic character of the discussion and thinking and search for values within a group of one's own peers. Here the focus is not upon information but upon attitudes, emotions, motivations, self-concepts, and the whole range of personality qualities (pp. 316-317).

While there seems to have been generally a positive, and optimistic approach to group counseling, communication and research between those in the various helping professions have lagged. Until recently, those in the helping professions--clinical psychology, counseling psychology, social work, school psychology, school counseling, rehabilitation counseling and employment counseling have done little sharing of abilities and communicating about theory and research. Hopefully, this period of noncommunication has passed and a cooperative effort, a real interdisciplinary approach, will be involved in future group counseling research.

Numerous researchers (Bates, 1966; Foley and Bonney, 1966; Gaways and Brown, 1965; and Ohlsen, 1966) have called attention to the use of group procedures in counseling. Some writers, Gazda (1963), Mahler and Caldwell (1961), indicate that a group approach to counseling offers a solution to some problems that confront the counselor. Other writers, Traxler (1957), Zimpfer (1969) and Stoller (1968a) feel that group counseling has its own inherent benefits and its own potential outcomes. Truax (1961) and Abell (1959) emphasize the advantages

of a group counseling approach over individual counseling, focusing upon such factors as peer perception, utilization of interpersonal interaction, and economy.

The research dealing with group counseling and personal adjustment is very contradictory, although a number of studies point to the existence of a relationship between personal adjustment and academic achievement. A study of college men by Yeomans and Lundin (1967) points out this relationship. In individuals accepting counseling Thelen and Harris (1968) found that certain positive personality factors, e.g., less apprehensiveness and higher self-concept were related to academic improvement. Studies by Speilberger, Weitz and Denny (1962), Ofman (1964), Chestnut (1965), Dickensen and Truax (1966), and Roth, Mauksch and Peiser (1967) suggest significant increase in academic grade point average as a result of group counseling, while studies by Winborn (1962), Gilbreath (1967), and Lieb (1967) show no such results. In considering this contradictory evidence caution must be used in interpreting results. Reasons for differences in results can be given which may or may not be valid. Size of the group, experimental design and statistics used, type of controls, population from which the sample is selected, and type of treatment given, all play a part in research findings with groups. Because these and other important factors are often not spelled out by the researcher, there has been little if any replication of previous research. The one fact which seems to come out of group research relating to academic improvement is that significant improvement with underachievers can be attained, but it is doubtful that success can be achieved with those of marginal ability.

Studies having to do with personal adjustment, particularly with students at the college level, are scarce. Three studies by Driver (1952) seemed to indicate that group counseling was very instrumental in helping college students gain in self-understanding and understanding of others. Thirty-six graduate students, male and female, as part of an educational psychology course volunteered for groups meeting twice a week for three weeks. Written self-evaluations three weeks after the last session showed that all thirty-six subjects thought they had gained in knowledge and appreciation of personality differences. Driver repeated essentially the same study twice, once with a group of fifteen undergraduate students and once with twenty seniors in a large high school, and came up with the same results. Subjects enjoyed and gained satisfaction from the sessions and gained in self-understanding and understanding of others.

Clampitt (1955), in a study using female college freshmen volunteers, found no significant differences between therapy, lecture, and control groups on personality test scores or adjustment ratings as a result of group counseling. However, the researcher did find some statistical differences between initial and follow-up scores on a number of personality inventories.

Grater (1959) investigated the effects of group discussion on changes in disparity between self-perception and ideal self for thirty college student leaders. Pre- and post- adjustment inventory scores indicated significant reduction in discrepancy between ideal and perceived self. Duncan (1962), in a study with college students on

probation, also found significantly smaller discrepancy scores on the Bills Index of Adjustment and Values at post counseling as a result of one semester of required group counseling.

Bonney and Gazda (1966) conducted a study investigating the effects of group counseling on the attitudes and behavior of counselors who participated in a summer NDEA Guidance and Counseling Institute. Two group counseling sessions, one and one-half hours each, were held every week for seven weeks. An eighteen month follow-up questionnaire was sent out and the subjects generally felt that they had received help with self-concept and with interpersonal and social relationships.

Muro and Ohmacht (1966), in a study to determine the effects of group counseling on attitudes of college freshmen, found significant changes in self-adjustment. Freshmen college students enrolled in an orientation to education course were randomly assigned to two experimental groups and to a control group. Pretest and posttest using Rokeach's Dogmatism Scale, the Index of Adjustment and Values by Bills and the Barron Complexity Scale were given to all subjects. Results showed statistically significant increases on the self-acceptance scale of the Index of Adjustment and Values for those in the experimental groups. No significant difference was found between the experimental and controls on the Dogmatism Scale or the Complexity Scale.

While both process and outcome studies are found in the group counseling literature, little attempt has been made to tie together outcome with process. Few studies attempt to specify which variables in the group process cause what kinds of outcome change in the group

members. Interaction between group members is seen as one variable about which little research is available. The importance of meaningful interaction including openness and personal disclosure has been stressed by theorists representing various shades of the existential tradition (Tillich, 1952; Fromm, 1955; Allport, 1961; Rogers, 1961; and Jourard, 1964). These views have melded well with the positions of such group therapists as Bach, Hill and Stoller, but there is little in terms of research to support claims made by the theorists or the practitioners.

Summary

The practice of group counseling has grown tremendously in recent years. Group counseling has generally been accepted by the professionally trained counselor and has received a degree of acceptance from the general community. The acceptance group counseling has received seems to be testimony to its inherent value and its even greater potential for the future. As some of the proponents of groups replace extravagant claims with scientific objectivity the service of counseling in groups will be further enhanced. This is not to suggest that there has been universal acceptance of group counseling. Only recently has the group counseling movement come under attack from right wing political organizations. There is also an aloofness toward the movement on the part of some professionals, particularly the behaviorists, who have adopted an attitude of watchful waiting until research is able to give validity to present claims.

The present evidence in support of group procedures cannot be ignored. The findings indicate that, although the effectiveness of group counseling procedures has not been empirically demonstrated with any degree of regularity, its potential has been demonstrated. In light of this situation, it is apparent that additional research is needed in this area, especially in determining what variables in the group process bring about change. The present study is an effort to add to the literature by determining what effect different levels of group interaction have on changes in self-concept and dogmatism.

CHAPTER III

DESIGN AND PROCEDURE OF THE EXPERIMENT

This chapter will present the design of the experiment and procedures used in testing the hypotheses. Included in the chapter are descriptions of the design, the evaluation instruments, the methodology and a description of how the data were statistically analyzed.

The Setting

The University of Arizona, founded in 1891, is a land-grant institution offering degrees in undergraduate, graduate, and professional areas. It is accredited by the North Central Association of Colleges and Secondary Schools as a degree-granting institution. There are approximately 23,000 students enrolled with a large percentage of out of state students coming from the east coast and southern California. This heterogeneous population provides the University with a metropolitan flavor in a politically conservative state. The University is located in Tucson, Arizona, a resort community of 350,000.

Design of the Experiment

Because of scheduling problems, the group members were not randomly assigned to groups and did not have complete pre-experimental sampling equivalence. Thus, this study was of a non-equivalent control group design. Campbell and Stanley (1963) refer to this as a

quasi-experimental design and found it meaningful for use when randomization procedures are impossible. They see in this design many external and internal validity threats being controlled.

The lack of a true experimental design should be considered in interpreting results of any experimental research. Caution should be used in making any claims regarding significant results in research which uses a quasi-experimental design. The researcher is aware of the residual imperfections in this design, but also feels, as do Campbell and Stanley, that lack of full experimental control should not deter one from conducting research.

Subjects

The subjects were twenty-four male and thirty-two female students enrolled in The University of Arizona during the spring semester of 1969. All subjects were in the age range of eighteen to twenty-nine years. The subjects included eight freshman, twenty-one sophomores, fourteen juniors, eleven seniors and two graduate students (Table I). Seventeen male and twenty-two female subjects were in the experimental group and seven male and ten females were in the control group.

Groups

Seven experimental groups were used. The group members came from the Student Counseling Bureau, the University Honors Program and transfer students who answered a letter sent to them requesting their participation (Appendix A). Group members were assigned to groups by

TABLE I

EXPERIMENTAL AND CONTROL GROUPS
SEX AND CLASSIFICATION

GROUP	SEX		CLASSIFICATION				
	M	F	FR.	SOPH.	JR.	SR.	GR.
A	3	3	0	1	3	2	0
B	5	1	1	1	1	2	1
C	2	4	0	2	2	2	0
D	1	3	0	2	1	0	1
E	2	3	0	4	1	0	0
F	2	4	3	1	1	1	0
G	2	4	1	1	2	2	0
	17	22	5	12	11	9	2
Control	7	10	3	9	3	2	0
Total N =	24	32	8	21	14	11	2

class schedules but remained homogeneous in the sense that subjects from the Honors Program were placed in groups with other students in the Honors Program, subjects from the Counseling Bureau were placed in groups with others from the Bureau, and transfer students were in groups with other transfer students.

The test-retest control group was composed of people who completed the pre- and post-test instruments but had no group treatment. This group was composed of students who desired a group experience but could not fit it into their schedule. The time period between pre- and post-testing for the control group was six to seven weeks which corresponded to the time period of the experimental group.

In an attempt to keep the subjects within the "normal" range of adjustment, the researcher and the group leaders were allowed to eliminate subjects as group members if it was determined that they:

1) were not in reality contact,
2) were overly manipulative or psychopathic,
3) were suffering from emergency emotional problems,
4) were extremely hostile or aggressive, or
5) previously had extensive group or individual counseling.

Two subjects were eliminated because of reasons three and four and assigned to individual counseling. Two people who had previously had extensive counseling were placed in another group not involved with the experiment.

A possible contaminating factor in the experiment was that participation was voluntary and there were drop-outs from several

experimental groups. One subject withdrew from the University and five others withdrew from the group experience for various reasons. The common reasons given were not enough time to devote to the group or the group did not meet the member's expectations. It should be noted, however, that the scores on the pretest did not differentiate these subjects from the others and there is no reason to believe that they were any different from those who completed the group experience, in terms of the variables focused on in this experiment.

Group Leaders and Tape Judges

The group leaders were all males and varied as to experience and background (Table II). No particular instructions were given to the leaders other than to lead their group in their usual manner. All group leaders knew that group interaction was involved in the study but only one was familiar with any of the instruments used.

The two tape judges were an undergraduate female student and a male graduate student who were not in the field of counseling or psychology. These judges were paid for their services and trained in the use of the Hill Interaction Matrix system.

Physical Facilities

All groups met in University buildings. Two different rooms were used but the same type of furniture and physical arrangements prevailed in all groups. Chairs were placed in a circle and a 360° microphone was placed in the center of the circle. Group members were not confined to the chairs and often would lounge informally on the floor.

TABLE II

GROUP LEADERS
BACKGROUND AND EXPERIENCE

LEADER OF GROUP	PREVIOUS GROUP EXPERIENCE*	EDUCATIONAL BACKGROUND	AGE
A	1 Group	Doctoral Candidate	31
B	0	Ph.D.	36
C	15+ Groups	Doctoral Candidate	31
D	10+ Groups	Doctoral Student	30
E	5+ Groups	Doctoral Candidate	36
F	15+ Groups	Doctoral Candidate	31
G	30+ Groups	Doctoral Candidate	46

*As a group leader

Evaluation Instruments

Bills Index of Adjustment and Values

The Index of Adjustment and Values (Appendix B) is an instrument which measures the values of a person, his acceptance of self, and the discrepancy which exists between his concept of self and his concept of his ideal self. This discrepancy score is closely related to the real and ideal selves so often referred to when Q-sort methodology is used. In addition to the discrepancy score, a self-concept and acceptance of self score can be obtained using the Index of Adjustment and Values. For purposes of this study, a modified version of the Index of Adjustment and Values which utilized only the discrepancy score between self and ideal self was used.

Reliability of the Index of Adjustment and Values as initially reported by Bills (1951) is adequate. An odd-even corrected reliability of .91 is reported for the acceptance of self scores and a similarly corrected reliability of .88 is given for the discrepancy scores on a sample of 237 students. A test-retest reliability of 175 of these students after a period of six weeks was .83 for the acceptance of self scores and .87 for the discrepancy scores. On a group of 100 college students, an odd-even corrected reliability of .53 was found for the perceived self and a reliability coefficient of .77 was found for the ideal self with the same students. A test-retest reliability after six weeks on another group of 160 students was .90 for the perceived self and .92 for the ideal.

The Index of Adjustment and Values was initially validated using the Rorschach (Bills, 1951). Since that time other studies (Bills, 1953; 1954; 1956; and Roberts, 1952) have seemed to indicate that the Index is a reliable and valid sample of the self-concept. The reader is referred to The Manual for the Index of Adjustment and Values (Bills, undated) for additional studies on this instrument.

Rokeach's Dogmatism Scale

The Dogmatism Scale (Appendix C) is an instrument used to measure an individual's open-closed belief dimension. Rokeach (1960, p. 71) states that, "The primary purpose of this scale is to measure individual differences in openness or closedness of belief systems." Rokeach has made the following generalizations between high and low scorers on the Dogmatism Scale. Closed minded, as contrasted to open minded respondents, are less able to:

1) perceive logical contradictions between conflicting beliefs,

2) perceive authority as a relative source of information,

3) judge or evaluate people without references to status or position,

4) recognize an unsolvable problem if indeed it is impossible to solve,

5) synthesize new beliefs into existing belief systems,

6) relate to others without the prospect of being threatened or punished, or

7) enjoy a variety of aesthetic experiences.

The reliabilities studies on the Dogmatism Scale range from .68 to .93. Rokeach considers these relabilities to be quite satisfactory when the type of items in the scale are considered. Zagona and Zurcher (1965) found test-retest reliability coefficients for the Dogmatism Scale compared with those cited by Rokeach. Reliability was found to be the same for the high dogmatics as for low dogmatics.

Construct and empirical validation studies of the scale may be found in The Open and Closed Mind (Rokeach, 1960). Rokeach in one study had graduate students rate their friends or acquaintances on dogmatism. Results showed that the friends rated as high dogmatic subjects scored considerably and significantly higher than the low dogmatic subjects on the Dogmatism Scale. Haimann and Duns (1964), in a series of four studies involving 505 subjects, tested the validity of the Dogmatism Scale and found results which tended to confirm Rokeach's method of validating the scale. Results indicated that it was possible for peers to predict subject's scores on the scale. Zagona and Zurcher, in their study, also found that the construct of dogmatism was supported by validity data resulting from experimental-observational studies of individual behavior and group processes.

There are several forms of the Dogmatism Scale with Form E, which yields one score, being used in this study. There are forty items on the test and the subject is instructed to answer all questions. If he agrees strongly with any statement he responds +3, moderately +2, slightly +1. If he disagrees strongly with the statement he answers -3, moderately -2, slightly -1. A score of plus 4

is added to each plus or minus response. The sum of these transformed scores is the subject's total score. These are the scores used to indicate open or closed mindedness. A high score indicates a high degree of dogmatism, ethnocentrism, defensiveness, and intolerance of ambiguities. A low score indicates a degree of flexibility, tolerance of ambiguities, and openness.

Hill Interaction Matrix

The Hill Interaction Matrix form G was used in ranking the experimental groups on intensity of group interaction. The Hill Interaction Matrix-G (Appendix D) is essentially a systematic set of categories developed for use in understanding and classifying group interaction. Tape recordings of all groups were made and analysis of group interaction was accomplished through the use of the Hill system. The categories of the Hill Interaction Matrix (HIM) were derived by Hill from studying intensively a number of counseling and therapy groups (Hill, 1965). This resulted in deriving two basic dimensions which seem to be paramount in distinguishing various groups. Both dimensions are manifested in "style" of operation; "style" is used as a single descriptive term which subsumes a variety of differing behaviors.

The HIM-G is a 72 item rating scale which may be filled out after listening to a recording of a group. Responses are keyed to a twenty-cell matrix (Figure 1). The cells are arranged in a hierarchial format which reflects Hill's convictions about what aspects of group counseling are most significant. The horizontal axis of the matrix is an indication of the content-style of a group session, and is subdivided

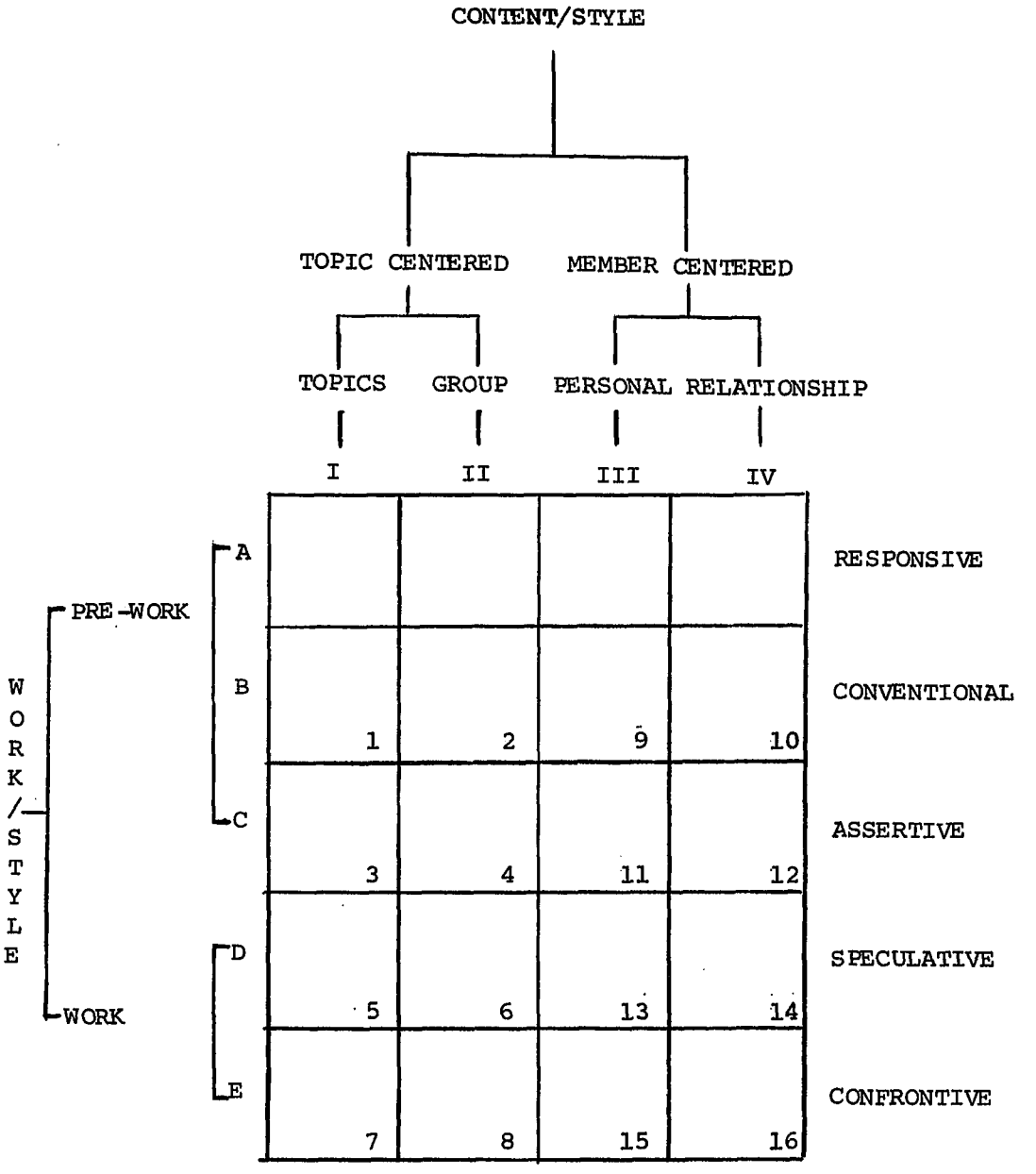


Figure 1

HILL INTERACTION MATRIX

into topic and member-centered dimensions. Within this framework, the content of the group's interaction may be: I Topic--topics external to the group; II Group--the group itself is discussed; III Personal--the problems of a member are discussed in a historical manner; IV Relationship--the "here-and-now" relationship of the group.

The vertical axis of the matrix is an indication of work style, classified as pre-work and work. The style of the group's interaction may be: A Responsive--responses to the leader's probes; B Conventional--social amenities, cocktail party talk, chitchat; C Assertive--acting out a difficulty rather than working on it; D Speculative--the conventional "playing the therapy game"; or E Confrontive--direct confrontation, tension and risk taking. In the present study, the Responsive style (A) was deleted because of the few number of items contributing to the scale, and because its usefulness is limited to groups whose members are withdrawn, as in a hospital setting.

The work style categories may further be considered in terms of the interpersonal threat or risk involved in the interaction. Interactions with greater interpersonal risk are termed "vulnerable" and are seen by Hill (1965) as having the greater therapeutic potential. Assertive (C) and Confrontive (E) are considered to be vulnerable modes, and have the highest therapeutic rank within the pre-work and work categories respectively (therapeutic rank is given within each cell of the matrix in Figure 1). Interaction with less interpersonal risk, Conventional (B) and Speculative (D), are termed "protected" modes, and are seen as being potentially less therapeutic; hence, they

have lower therapeutic ranks. To assess the vulnerability of interaction in a group, a Risk-Ratio is determined:

$$\text{Risk-Ratio} = \frac{\Sigma C + \Sigma E}{\Sigma B + \Sigma D} \times 5$$

The constant, five, is used in the formula to make the Risk-Ratio from the HIM-G comparable with the Risk-Ratios from other Hill instruments.

Methodology

Treatment

The seven experimental groups received fifteen hours of group counseling. Six groups met for six weeks, once a week for two and one-half hours. One group (Group G) met for five weeks, twice a week for one and one-half hours.

While each counselor was allowed to conduct his group using whatever technique he desired, the general goal was to facilitate honest and open communication between group members. The general stated focus of discussion was on the self and each other. While this was a preferred mode of operation, individual group leaders were not compelled to follow it and variations in group procedure did occur.

Testing and Tape Evaluation

The Bills Index of Adjustment and Values, and Form E of the Dogmatism Scale, were administered to both the experimental and control groups on a pre- and post-test basis. The first testing with the two instruments occurred during or immediately after the initial group

session, and the post-test occurred after each group had received fifteen hours of group counseling. The pre-test for the control group was accomplished in the University Counseling Bureau or the University Honors office. The post-test was secured by mailing the instruments to the members of the control group and took place approximately six or seven weeks after the pre-test.

All sessions of the experimental groups were recorded on audio tape and the HIM-G was used to evaluate group interaction during two group sessions. One hour of group interaction was rated from session four and one hour from session five. As each session was two and one-half hours long, arbitrarily the first hour in each session rated was eliminated, then the next hour from each session was re-recorded on master tapes, with the last half-hour not being used. This gave two separate one-hour tapes for each group that was rated by the judges. A somewhat different method was used with Group G, which met for one and one-half hour sessions twice a week. Sessions six and eight were used with the first fifteen minutes and the last fifteen minutes of these sessions being eliminated.

As a result of this procedure, each group received four separate ratings. The sequence of sessions on the master tape was such that no group was rated twice in succession by the judges.

Statistical Analysis of the Data

In analyzing the hypothesis, the mean change score for each group was computed. In testing the homogeneity of variances, an F

ratio was employed to ensure the validity of the t-test used. In all cases the variances were statistically homogeneous.

The significance of the difference between the means of change scores of the groups in each hypothesis was obtained using the formula for the t-test for independent small samples (Figure 2). A one tailed test at the .05 level of significance was chosen for rejection of all the null hypotheses.

Popham (1967) gives the assumptions for the use of the t-test:

1) The population from which each sample is drawn is distributed in a normal fashion.
2) The sample must be representative of the population under consideration.

Popham feels these assumptions are quite lenient. He states, "One can depart quite markedly from them and still obtain a t value which can be correctly interpreted." (p. 139)

There was concern in the design about experimental and control group equivalence as the lack of equivalence could have effects upon the results of the measurement instruments. As has been noted, random assignment of subjects to the experimental and control groups was not attempted because of scheduling problems and the relatively small pool of potential group members. Campbell and Stanley (1963), however, stress that only through randomization can true equivalence of groups be assumed. They suggest that the matching of members on individual test scores, while not as effective, can offer some assurance of equivalence. Because of the same problems mentioned above such matching

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{\Sigma x_1^2 + \Sigma x_2^2}{n_1 + n_2 - 2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$\bar{X}_1$ = the mean of group 1

$\bar{X}_2$ = the mean of group 2

Σx_1^2 = the sum of squared deviations from the mean for group 1

Σx_2^2 = the sum of squared deviations from the mean for group 2

n_1 = the number of subjects in group 1

n_2 = the number of subjects in group 2

FIGURE 2. FORMULA AND LEGEND FOR THE t-TEST OF THE SIGNIFICANCE OF DIFFERENCES BETWEEN MEANS FOR INDEPENDENT SMALL SAMPLES

was not practical. Therefore, it was determined to assign group members by the method previously mentioned and employ a non-equivalent control group design.

No assumption was made as to the equivalence of groups on scores on the two testing instruments. It was determined instead to employ the statistical control of pretest, posttest difference scores in the comparison of the groups. This technique is a relatively effective control, with the possible exception that a group that is more extreme in scores on the pretest could move further towards the mean as a function of regression.

An additional check of equivalency was a test of significance of the differences between means on the pretest scores for the experimental and control groups. The results of this test for both the Index of Adjustment and Values and the Dogmatism Scale are presented in Table III. The null hypothesis of no significant difference between experimental and control groups on the pretest was upheld for both the Index of Adjustment and Values and the Dogmatism Scale. Although the t value

TABLE III

A COMPARISON OF PRETEST SCORES FOR EXPERIMENTAL AND CONTROL GROUPS

Groups	Instrument	N	S.D.	Mean	t
Experimental	IAV	39	19.03	53.87	
Control		17	17.71	45.59	1.51 N.S.
Experimental	Dogmatism	39	21.65	130.23	
Control		17	23.37	134.53	.66 N.S.

$p = .05$ ($t = 1.67$).

for the Index of Adjustment and Values was approaching significance and should be considered in interpreting results, it would appear from the pretest scores that the experimental and control groups were not dissimilar.

In summary, it is believed that while there may be some differences between the experimental and control groups which were not controlled by the design, these are probably so slight as to have had a minimal effect on the results of the study.

CHAPTER IV

RESULTS OF STATISTICAL ANALYSIS

This chapter presents the results of statistical analysis of each hypothesis presented in the study. The hypotheses are presented in the same order as they were in Chapter I, but in the null form. Prior to the statistical results, a discussion on selection of the three most and three least intense groups, in terms of interaction, is presented.

Ranking of Groups on Interaction

Since group interaction and intensity of interaction was of primary concern in this research, the method of ranking the seven experimental groups is presented here. Table IV presents the composite results of four separate ratings for each group in terms of raw scores, percentages of interaction in each cell, cell of highest frequency and risk ratios.

Appendix E presents in detail, Content/Style, Work/Style and Quadrant percentile rank for the experimental groups using norms presented by Hill (1965). Appendix E also presents psychograms for loadings in percentile rank for Content/Style, Work/Style and Quadrant/Style for each experimental Group.

Inspection of the relevant data in Table IV provides for ranking of the experimental groups from most intense to least intense in

TABLE IV

JUDGE'S RATING ON HIM-G*: PERCENTAGES, CELLS OF HIGHEST FREQUENCY, AND RISK RATIOS FOR THE EXPERIMENTAL GROUPS

	GROUPS						
	A	B	C	D	E	F	G
I	112(.44)	104(.26)	58(.17)	114(.34)	126(.44)	108(.28)	78(.22)
II	20(.08)	78(.20)	30(.09)	31(.09)	9(.03)	35(.09)	25(.06)
III	58(.23)	116(.29)	132(.40)	98(.30)	84(.29)	136(.36)	148(.41)
IV	63(.25)	102(.25)	111(.34)	90(.27)	68(.24)	104(.27)	112(.31)
B	137(.54)	120(.30)	54(.16)	120(.36)	117(.41)	80(.21)	57(.16)
C	26(.10)	61(.15)	84(.25)	37(.11)	51(.18)	81(.21)	83(.22)
D	70(.28)	124(.31)	101(.31)	115(.35)	76(.26)	116(.30)	116(.32)
E	20(.08)	95(.24)	92(.28)	61(.18)	43(.15)	106(.28)	107(.30)
Cell of Highest Frequency	IB	IIID	IIID	ID	IB	IIID	IIID
Risk Ratio	1.11	3.20	5.71	2.08	2.44	4.77	5.49

*Reader is referred to page 35 for a description of the HIM-G.

Note: Numbers in parentheses indicate per cent; those without parentheses indicate raw score.

the order presented in Table V. From these data Groups C, G, and F were selected as the most intense experimental groups and Groups D, E, and A were selected as the least intense. Hereafter, Groups C, G, and F will be referred to as Most Intense Experimental Group and Groups D, E, and A will be referred to as the Least Intense Experimental Group. Group B was not used as it represented the mid-point in terms of group intensity and interaction. It should be noted, from Table II, that Groups C, G, and F were led by the most experienced leaders.

Two tests of interjudge reliability on the HIM-G were made.

1) A Spearman rank order correlation coefficient was computed using the Risk-Ratio's given each group by the two judges. A rho of .84 which is significant at the .05 level was secured by this test.
2) One of the seven experimental groups was randomly selected and a Spearman rank order correlation coefficient was computed using the raw scores found in each cell of the matrix. A rho of .69 which is significant at the .01 level was secured by this test.

Testing the Hypotheses

Presented in Appendix F can be found information on subjects in the seven experimental groups showing sex, classification, and pre- and posttest difference scores on the Index of Adjustment and Values and the Dogmatism Scale. Appendix G presents the same data for those subjects in the control group.

TABLE V

RANKING OF EXPERIMENTAL GROUPS FROM MOST INTENSE TO LEAST INTENSE USING RISK RATIOS*

GROUP	CELL OF HIGHEST FREQUENCY	RISK RATIO	PERCENTAGE IN CELLS B	C	D	E
C	IIID	5.71	.16	.25	.31	.28
G	IIID	5.49	.16	.22	.32	.30
F	IIID	4.77	.21	.21	.30	.28
B	IIID	3.20	.30	.15	.31	.24
D	ID	2.08	.36	.11	.35	.18
E	IB	2.44	.41	.18	.26	.15
A	IB	1.11	.54	.10	.28	.08

* Reader is referred to page 38 for description of the Risk Ratio

Testing Hypothesis I

The null form of Hypothesis I states that discrepancy scores between self-concept and ideal self-concept of those subjects in the experimental group will be equal to or higher than discrepancy scores of those subjects in the control group when raw score differences between the pre- and post-test are taken as a measure of change.

In order to test this hypothesis, the discrepancy scores between the self-concept and the ideal self-concept were taken on a pre- and post-test basis for both the experimental and control group. The difference between the pretest and posttest discrepancy scores were derived for each subject and means of these differences for the experimental and control group were determined.

The significance of the difference between means of the experimental and control groups was calculated using the t test for the significance of differences between means of independent small samples.

Table VI reports the pertinent data with reference to Hypothesis I and this hypothesis was rejected at the .05 level of significance.

TABLE VI

STATISTICAL COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON MEAN REAL AND IDEAL SELF CHANGE SCORES USING THE INDEX OF ADJUSTMENT AND VALUES

GROUP	INSTRUMENT	N	S.D.	MEAN CHANGE SCORE	t
Experimental	I.A.V.	39	11.58	- 9.03	1.76
Control		17	8.30	- 3.53	
	Degrees of Freedom = 54				

p = .05 (t = 1.67 one tailed test)

It should be pointed out that while there was change in both the experimental and control groups towards less discrepancy between real self and ideal self at posttest, the experimental group had, statistically, significantly less discrepancy than the control group.

The experimental hypothesis that subjects receiving group counseling in the experimental group will have significantly less discrepancy between self-concept and ideal self-concept than subjects in the control group when raw score difference between the pre- and post-test data are taken as a measure of change was upheld.

Testing Hypothesis II

The null form of Hypothesis II states that dogmatism scores of those subjects in the experimental group will be equal to or higher than dogmatism scores of those subjects in the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

The same procedure used in testing Hypothesis I was followed in testing Hypothesis II and the results with reference to Hypothesis II are presented in Table VII. The t value for Hypothesis II was not significant and the null hypothesis was upheld.

The direction of change towards less dogmatism was in favor of the experimental group but the t value does not approach significance. Statistically there is no support for the hypothesis that subjects receiving group counseling would be significantly less dogmatic than

TABLE VII

STATISTICAL COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON MEAN DOGMATISM CHANGE SCORES USING THE DOGMATISM SCALE

GROUP	INSTRUMENT	N	S.D.	MEAN CHANGE SCORE	t
Experimental	D Scale	39	16.24	- 2.77	.53
Control		17	11.32	- .35	
	Degrees of Freedom = 54				

p = .05 (t = 1.67 one tailed test)

subjects in the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

Testing Hypothesis III

The null form of Hypothesis III states that discrepancy scores between self-concept and ideal self-concept for those experimental groups operating at intense levels of interaction will be equal to or higher than discrepancy scores of those experimental groups operating at less intense levels of interaction when raw score differences between the pre- and post-test are taken as a measure of change.

The discrepancy scores between the self-concept and the ideal self-concept were taken from the pre- and post-test for both the Most Intense Experimental Group and the Least Intense Experimental Group. The difference between the pre- and post-test discrepancy scores were derived for each subject and means of these differences for the Most

Intense Experimental Group and the Least Intense Experimental Group were determined.

The significance of the difference between means of the Most Intense Experimental Group and the Least Intense Experimental Group was calculated using the t test for the significance of difference between means of independent small samples.

Table VIII reports that pertinent data with reference to Hypothesis III and the null hypothesis was rejected at the .01 level of significance.

In the present study experimental groups operating at intense levels of interaction had significantly less discrepancy between self-concept and ideal self-concept than groups operating at less intense levels when raw score differences between the pre- and post-test data were taken as a measure of change.

TABLE VIII

STATISTICAL COMPARISON OF M.I.E.G. AND L.I.E.G. ON MEAN REAL AND IDEAL SELF CHANGE SCORES USING THE INDEX OF ADJUSTMENT AND VALUES

GROUP	INSTRUMENT	N	S.D.	MEAN CHANGE SCORE	t
M.I.E.G.	I.A.V.	18	11.38	-14.72	3.53
L.I.E.G.		15	8.59	- 2.13	
	Degrees of Freedom = 31				

M.I.E.G. = Most Intense Experimental Group
L.I.E.G. = Least Intense Experimental Group
p = .05 (t = 1.69 one tailed test)
p = .01 (t = 2.45 one tailed test)

In looking at Table VI and Table VIII, an interesting observation should be pointed out and a note should be made of the mean change scores for the various groups on the Index of Adjustment and Values. For the experimental group, which included all seven treatment groups, the mean change score was -9.03, for the control group it was -3.53, for the Most Intense Experimental Group it was -14.72, and for the Least Intense Experimental Group it was -2.13. The t value for Hypothesis I, which compared the seven experimental groups with the control group, was 1.76 with 54 degrees of freedom. This was significant at the .05 level. The t value for Hypothesis III, which compared the Most Intense Experimental Group with the control group was 3.53 with only 31 degrees of freedom. This value was significant at the .01 level.

This observation would seem to suggest that members of experimental groups operating at lesser levels of intensity could benefit, at least as measured by this research, as much from being a member of the control group.

Testing Hypothesis IV

The null form of Hypothesis IV states that dogmatism scores for those experimental groups operating at intense levels of interaction will be equal to or higher than dogmatism scores of those experimental groups operating at less intense levels of interation when raw score differences between the pre- and post-test are taken as a measure of change.

The same procedure used in testing Hypothesis III was followed in testing Hypothesis IV and the results with reference to Hypothesis IV are presented in Table IX. The t value for Hypothesis IV was not significant and the null hypothesis was upheld.

Results of testing Hypothesis IV seem to indicate that intensity of group interaction has no effect on dogmatism scores of group members. The experimental hypothesis that groups operating at intense levels of interaction would be less dogmatic than groups operating at less intense levels of interaction when raw score differences between the pre- and post-test data were taken as a measure of change was not upheld.

TABLE IX

STATISTICAL COMPARISON OF M.I.E.G. AND L.I.E.G. ON MEAN DOGMATISM CHANGE SCORES USING THE DOGMATISM SCALE

GROUP	INSTRUMENT	N	S.D.	MEAN CHANGE SCORE	t
M.I.E.G.	D Scale	18	14.92	- 2.06	.31
L.I.E.G.		15	18.26	- 3.86	
	Degrees of Freedom = 31				

M.I.E.G. = Most Intense Experimental Group
L.I.E.G. = Least Intense Experimental Group
p = .05 (t = 1.69 one tailed test)

Testing Hypothesis V

The null form of Hypothesis V states that discrepancy scores between self-concept and ideal self-concept for those experimental groups operating at intense levels of interaction will be equal to or higher than discrepancy scores of the control group when raw score differences between the pre- and post-test are taken as a measure of change.

In testing this hypothesis, the discrepancy scores between self-concept and ideal self-concept were taken from the pre- and post-test for both the Most Intense Experimental Group and the Control Group. The differences between the pretest and the posttest discrepancy scores were derived for each subject and means of these differences for the Most Intense Experimental Group and the Control Group were determined.

The significance of the difference between means of the Most Intense Experimental Group and the Control Group was calculated using the t test for the significance of difference between means of independent small samples.

Table X reports the pertinent data with reference to Hypothesis V and the null hypothesis was rejected at the .01 level of significance. The experimental hypothesis that groups operating at intense levels of interaction will have significantly less discrepancy between self-concept and ideal self-concept than the control group when raw score differences between the pre- and post-test data are taken as a measure of change was upheld.

TABLE X

STATISTICAL COMPARISON OF M.I.E.G. AND CONTROL GROUP ON MEAN REAL AND IDEAL SELF CHANGE SCORES USING THE INDEX OF ADJUSTMENT AND VALUES

GROUP	INSTRUMENT	N	S.D.	MEAN CHANGE SCORE	t
M.I.E.G.	I.A.V.	18	11.38	-14.72	3.27
Control		17	8.56	- 3.53	
	Degrees of Freedom =	33			

M.I.E.G. = Most Intense Experimental Group
p = .05 (t = 1.69 one tailed test)
p = .01 (t = 2.44 one tailed test)

Testing Hypothesis VI

The null form of Hypothesis VI states that dogmatism scores for those experimental groups operating at intense levels of interaction will be equal to or higher than dogmatism scores for the Control Group when raw score differences between the pre- and post-test are taken as a measure of change.

The same procedure used in testing Hypothesis V was followed in testing Hypothesis VI and the results with reference to Hypothesis VI are presented in Table XI. The t value for Hypothesis VI was not significant and the null hypothesis was upheld.

Results of testing this hypothesis seem to indicate that intensity of group interaction has no effect on group members becoming less dogmatic or more open in their belief system.

TABLE XI

STATISTICAL COMPARISON OF M.I.E.G. AND CONTROL GROUP ON MEAN DOGMATISM CHANGE SCORES USING THE DOGMATISM SCALE

GROUP	INSTRUMENT	N	S.D.	MEAN CHANGE SCORE	t
M.I.E.G.	D Scale	18	14.92	- 2.06	.38
Control		17	11.32	- .35	
	Degrees of Freedom = 33				

M.I.E.G. = Most Intense Experimental Group
p = .05 (t = 1.69 one tailed test)

The experimental hypothesis that groups operating at intense levels of interaction would be significantly less dogmatic following treatment than the control group was not upheld.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, a summary of the presently reported research is presented, followed by discussion, conclusions and recommendations for further research in group counseling.

Summary

This study was designed to determine what effect group counseling and particularly intensity of group interaction has upon self-concept and dogmatism change in college students.

Group counseling is seen as having potential to help students grow in ways not found in individual counseling. Unique variables and characteristics are involved in group counseling that are perhaps different from those found in individual counseling. This study was primarily concerned with the investigation of one group variable, the intensity of group interaction, and its part in bringing about changes in self-concept and dogmatism in individual group members.

The group experience, with its intimacy and feelings of belongingness, is seen by many people as an excellent vehicle to combat the isolation and alienation found in our contemporary society. Part of this feeling of alienation has to do with man's often distorted concept of himself. Man who attempts to become introspective may develop

an obscure view of himself. He needs an exterior frame of reference in order to develop a well-structured inner-self.

In a group, man cannot rely only upon himself for a view of himself. In the group process he becomes aware of the group's perception of what he is or what he purports to be. Thus, in the group one gains greater self-awareness. Through this more enriched concept of himself the individual is better able to release his full positive potential to society.

Educational institutions have an obligation to provide an opportunity for the individual to initiate and sustain a process of individual growth. Educators are committed to the democratic principle in education that each individual merits opportunity for his maximum development. It is necessary for educators to be concerned with preventing the growth of barriers which reduce the opportunity for maximum growth and development and which lead to alienation and isolation.

Six experimental hypotheses were presented in this study.

1) Subjects receiving group counseling in the experimental group will have significantly less discrepancy between self-concept and ideal self-concept, as measured by the Bills Index of Adjustment and Values, than subjects in the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

2) Subjects receiving group counseling in the experimental group will be significantly less dogmatic, when tested on Rokeach's Dogmatism Scale, than subjects in the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

3) Experimental groups operating at intense levels of interaction will have significantly less discrepancy between self-concept and ideal self-concept, as measured by Bills Index of Adjustment and Values, than groups operating at less intense levels of interaction when raw score differences between the pre- and post-test data are taken as a measure of change.

4) Experimental groups operating at intense levels of interaction will be less dogmatic, when measured by Rokeach's Dogmatism Scale, than groups operating at less intense levels of interaction when raw score differences between the pre- and post-test data are taken as a measure of change.

5) Experimental groups operating at intense levels of interaction will have significantly less discrepancy between self-concept and ideal self-concept, as measured by the Bills Index of Adjustment and Values, than the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

6) Experimental groups operating at intense levels of interaction will be significantly less dogmatic, when tested on Rokeach's Dogmatism Scale, than the control group when raw score differences between the pre- and post-test data are taken as a measure of change.

A review of the literature was presented which included a brief history of group work in psychotherapy and counseling, and a review of the research on group counseling at the college level. The review showed that, despite the fact that group counseling had been offered for a number of years, research as to its effectiveness is inadequate

and often contradictory. Research is needed which includes simultaneous studies of process and outcome goals. Research on group counseling in the educational setting is also needed.

A non-equivalent control group design was used for this study. Group members came from three sources, transfer students, students in the University Honors Program, and students using the services of the University Counseling Bureau. Seven treatment groups and a control group were set up with subjects coming from the sources mentioned above. A total of 56 students were involved, seven males and ten females in the control group and seventeen males and twenty-two females in the experimental group. Subjects ranged in classification from freshmen to graduate students with the majority being sophomores and juniors.

The experimental group received fifteen hours of group counseling while the control group received no treatment. The group leaders were all males and varied as to experience in group counseling. The Bills Index of Adjustment and Values and Form E of Rokeach's Dogmatism Scale were administered to both the experimental and control group on a pre- and post-test basis.

All group sessions were audio taped and two hours of each treatment group were rated on intensity of interaction by two judges working independently, using the Hill Interaction Matrix. Two tests of inter-judge reliability were conducted and inter-judge reliability was considered adequate. The Hill system is a systematic set of categories developed by William Fawcett Hill for use in understanding and

classifying group interaction. Intense group interaction is represented by honesty, involvement, intimacy, tension and exposure of one's real self. On the basis of the judges' ratings the seven treatment groups were ranked in terms of intensity of group interaction.

Analysis of the data centered around the six hypotheses. Means and standard deviations were computed and one tailed t-tests were calculated at the .05 level for each hypothesis. Each experimental hypothesis was stated in the null form and the following results were obtained:

1) Hypothesis I - null hypothesis rejected at the .05 level of significance.
2) Hypothesis II - null hypothesis was upheld.
3) Hypothesis III - null hypothesis rejected at the .01 level of significance.
4) Hypothesis IV - null hypothesis was upheld.
5) Hypothesis V - null hypothesis rejected at the .01 level of significance.
6) Hypothesis VI - null hypothesis was upheld.

Hypotheses I, III, and V which were concerned with real and ideal self-concept were rejected in the null form. Hypotheses II, IV, and VI which were concerned with dogmatism and open-closed belief system were upheld in the null form.

Results of the research indicated that group counseling under certain conditions can make a change in reducing discrepancy between real and ideal self-concepts. Group counseling does not seem to

influence dogmatism scores of group members in any way. Results also seem to indicate that intensity of group interaction is an important variable in group counseling with regard to reducing discrepancy between the real and ideal self-concept. Those treatment groups which were the most intense seemed to have the most change in the direction of less discrepancy between self-concept and ideal self-concept as measured by the Index of Adjustment and Values. Groups operating at lesser levels of intensity showed change that was not different from that of the control group.

Group counseling and intensity of group interaction does not seem to be a factor in change in dogmatism scores. There were no changes in dogmatism scores for any of the groups under study.

Discussion

The sina qua non of success in research is the "significant difference." A finding of no significant difference allows one to speculate as to the reasons.

In behavioral science research, the measuring instruments themselves often are insensitive to certain changes and have no provisions for measuring these changes. For example, for some individuals the decision to examine the possibility of change in one's concept of self, or change in open-closed belief system, may be a very significant step which occurs prior to any actual change in these variables. The entire group life may be spent in resolving the question of changing or not changing. This would be very difficult to measure by the usual instruments used in group counseling research.

Two important factors reflect on this same question:

1) The amount of counseling time spent in the group experience. Fifteen hours spent in group counseling may not be sufficient to produce change.

2) The time period between pre- and post-test must be considered. Change may not show up when the posttest is conducted immediately after the treatment, as there may be a latent time period before change takes place.

In attempting to speculate specifically as to why there was no apparent change in dogmatism scores, Rokeach (1960) perhaps offers an answer.

> . . . the assumption that while a person's belief-disbelief system is a relatively enduring structure, the extent to which it is open or closed at any particular moment, is jointly influenced by situational conditions interacting with personality. A person's belief-disbelief system is never totally activated or engaged at any one time. Each situation, according to its structure and according to the motivational forces it gives rise to, activates only certain beliefs relevant to that situation. (p. 402).

Perhaps dogmatism, open and closed belief systems, are relatively permanent states within the individual and the "situational conditions" of the group encounter did not deal with important factors in the individual's belief system which would allow change.

Another factor related to no significant change can be found in Rokeach's statement that " . . . the main function served by closed systems is to defend the self or the group against anxiety." (p. 36). He points out that all belief-disbelief systems serve two conflicting motives, the need for a cognitive framework to know and to understand and the need to ward off threatening aspects of reality.

> To the extent that the cognitive need to know is predominant and the need to ward off threat absent, open systems should result. In the service of the cognitive need to know, external pressures and irrational internal drives will often be pushed aside, so that information received from outside will be discriminated, assessed, and acted on according to the objective requirements of the situation. But as tne need to ward off threat becomes stronger, the cognitive need to know should become weaker, resulting in more closed belief system. (pp. 67-68).

An underlying state of threat, as might be encountered in a group counseling situation, might give rise to and support a closed belief system and change might not occur under these circumstances.

Conclusions

The research findings presented here, raise many methodological and theoretical issues, but on the basis of the present findings the following conclusions can be made. Generalization to other situations can legitimately be made only if the limitations of this study are kept in mind.

1) Counseling groups which operate at intense levels of interaction, as measured by the HIM rating system, have less discrepancy between real and ideal self-concept at posttest, than a control group or groups operating at less intense levels of interaction. Intense interaction, in the HIM system, is represented by honesty, involvement, intimacy, tension and exposure of one's real self. These factors seem to be important in producing change. This would provide support for those group counselors who are interested in operating from a group interaction frame of reference.

2) Group counseling, as practiced in this experiment, did not affect dogmatism scores of college students. Dogmatism, as part of

an open-closed belief system, was not influenced in any direction by the group counseling experience. Intensity of group interaction had no effect on reducing dogmatism in individual group members, therefore, it is not to be expected that this kind of group counseling experience will affect the dogmatic beliefs of group members.

3) Results of this research have indicated that some counselors and counseling experiences have no effect and sometimes negative effects on clients. Members of counseling groups which operated at less intense levels of group interaction did not differ in change on self-concept scores from those individuals who formed the control group and received no treatment.

Recommendations

In light of the results of this research, the following recommendations are given as possible areas for future research:

1) Replication of this study using multiple measures of self-concept.

2) Replication with tighter controls to more nearly approximate a true experimental pretest-posttest design.

3) A study of the effects of intensity of interaction as a factor in changes in behavior when desired behavioral changes are specified by the group member himself. Outcome would be specific to individuals rather than to the group in general.

4) Research in terms of the leader's group experience as a variable in a counseling group's ability to interact at an intense level.

This research indicated that there was greater change in the members of groups meeting with the more experienced group leaders.

5) Continued attention should be given to the development of theoretical models which specify the conditions within a group which affect outcome. For example, model building, followed by experimental research on the group conditions that might lead to modification of dogmatism as part of a belief-disbelief system, could provide helpful information on process and outcome in group counseling. The group counselor who ties himself to current individual counseling theory in his group work is likely to be more hampered often times than helped, more illogical in his approach than logical.

6) A follow-up study on self-concept to ascertain the permanence of changes in self-concept.

7) Replication of this study with a longer treatment time using the same instruments.

8) A follow-up of subjects in this study to determine what effect time has as a factor in changes in dogmatism.

9) Establishment of a research design using criterion measures outside as well as within the group counseling setting. This would present opportunities for the group member to demonstrate the extent of incorporation of his learning experience.

10) Design of a statistical model which could determine the inter-relationships of numerous process and outcome variables in the group counseling encounter.

11) Investigation of methods of quickly bringing about intensity of interaction in a group counseling situation.

APPENDIX A

LETTER TO TRANSFER STUDENTS

Dear

A sample of transfer students entering The University of Arizona at mid-term have been selected as subjects in research attempting to evaluate (1) problems of transfer students, and (2) changes in self-concept and dogmatism as a result of a group experience. Your name was selected for this group and we would very much appreciate your cooperation.

While the results of this research could have important implications, there are also personal and scholastic benefits which you could derive from participation. I would appreciate talking to you about this as I sincerely feel that participation in this research will be very meaningful to you. I will be in my office in the Old Psychology Building, 200w, and can be seen without appointment at the following times:

Monday, 1:00 - 3:00
Tuesday, 1:00 - 5:00
Wednesday, 9:00 - 12:00
Thursday, 1:00 - 5:00

Sincerely yours,

APPENDIX B

INDEX OF ADJUSTMENT AND VALUES

INDEX OF ADJUSTMENT AND VALUES

Directions: Column I - Complete the following sentence using each of the words in the list, "I am a(n)_____person." Indicate using the following scale how much of the time this statement is you.

Column II - Complete the sentence, "I would like to be a(n)_____person." Indicate in Column II how much of the time you would like this trait to be characteristic of you using the same scale.

Complete both columns for each word before going on to the next word.

1. Seldom
2. Occasionally
3. Half of the time
4. A good deal of the time
5. Most of the time

	I am	I would like to be
Acceptable		
Accurate		
Alert		
Ambitious		
Annoying		
Busy		
Calm		
Charming		
Clever		
Competent		
Confident		
Considerate		
Cruel		

	I am	I would like to be
Democratic		
Dependable		
Emotional		
Efficient		
Fearful		
Friendly		
Fashionable		
Helpful		
Intellectual		
Kind		
Logical		
Meddlesome		
Merry		
Mature		
Nervous		
Normal		
Optimistic		
Poised		
Purposeful		
Reasonable		
Reckless		
Responsible		
Sarcastic		
Sincere		

	I am	I would like to be
Stable		
Studious		
Successful		
Stubborn		
Tactful		
Teachable		
Useful		
Worthy		
Broadminded		
Business like		
Competitive		
Fault finding		

Name

College Standing

Address

Telephone

APPENDIX C

DOGMATISM SCALE - FORM E

DOGMATISM SCAIE

The following is a study of what the general public thinks and feels about a number of important social and personal questions. The best answer to each statement below is your personal opinion. We have tried to cover many different and opposing points of view; you may be agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3 or -1, -2, -3, depending on how you feel in each case.

+1:	I AGREE A LITTLE	-1:	I DISAGREE A LITTLE
+2:	I AGREE ON THE WHOLE	-2:	I DISAGREE ON THE WHOLE
+3:	I AGREE VERY MUCH	-3:	I DISAGREE VERY MUCH

_____ The United States and Russia have just about nothing in common.

_____ The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.

_____ Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

_____ It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

_____ Man on his own is a helpless and miserable creature.

_____ In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

_____ It is only natural for a person to be rather fearful of the future.

_____ Fundamentally, the world we live in is a pretty lonesome place.

_____ Once I get wound up in a heated discussion I just can't stop.

_____ There is so much to be done and so little time to do it in.

_____ Most people just don't give a "damn" for others.

_____ It is better to be a dead hero than a live coward.

_____ I'd like it if I could find someone who would tell me how to solve my personal problems.

_____ In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

_____ While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

_____ The main thing in life is for a person to want to do something important.

_____ In times like these, a person must be pretty selfish if he considers primarily his own happiness.

_____ There are a number of people I have come to hate because of the things they stand for.

_____ A man who does not believe in some great cause has not really lived.

_____ If given the chance I would do something of great benefit to the world.

_____ In the history of mankind there have probably been just a handful of really great thinkers.

_____ It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

_____ The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

_____ The present is all too often full of unhappiness. It is only the future that counts.

_____ Most of the ideas which get printed nowadays aren't worth the paper they are printed on.

_____ Of all the different philosophies which exist in this world there is probably only one which is correct.

_____ There are two kinds of people in this world: those who are for the truth and those who are against the truth.

_____ In the long run the best way to live is to pick friends and associates whose taste and beliefs are the same as one's own.

_____ Most people just don't know what's good for them.

_____ It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

_____ A person who thinks primarily of his own happiness is beneath contempt.

_____ Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

_____ In times like these it is often necessary to be on guard against the ideas put out by people or groups in one's own camp than by those in the opposing camp.

_____ My blood boils whenever a person stubbornly refuses to admit he's wrong.

_____ A group which tolerates too many differences of opinion among its own members cannot exist for long.

_____ If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

_____ A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.

_____ To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.

_____ When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

_____ In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

Name _____
Last First Middle

College _____ Standing _____
(Fresh., Soph., etc.)

Address _____

Telephone _____

APPENDIX D

HILL INTERACTION MATRIX - G

HIM-G

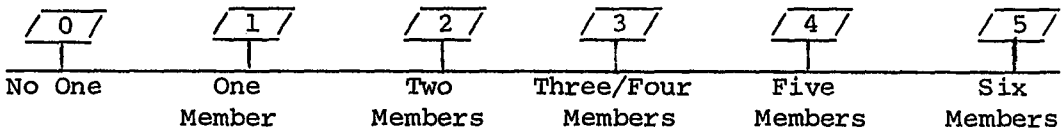
TEST BOOKLET

INSTRUCTIONS

After having observed or participated in a group session or having listened to and/or watched an audio or video tape of a group session or having read a typescript of a group session you then rate the group session on the 72 items of the HIM-G.

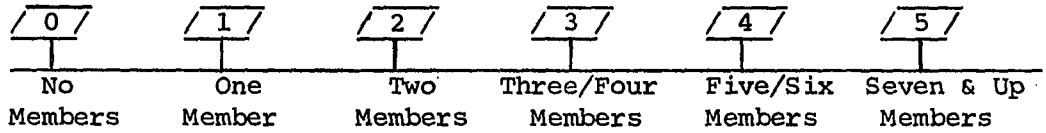
Besides rating a group session, or portion thereof, the test can be used in a variety of other ways, for example, a therapist could describe what an Ideal group would look like to him. Also various types of group work could be operationally defined by answering the items of the HIM-G in terms of a theoretical or clinical position.

Should a group have only six members the continuum for the response categories is modified as follows:

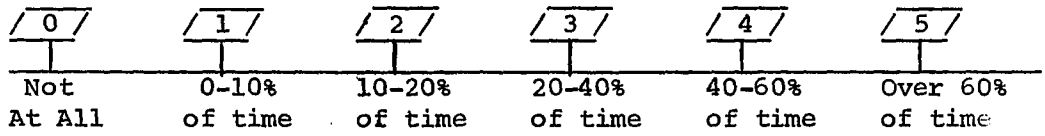


Note: Item 64 deals with the amount of group time taken up by the group leader. All other items about the group leader are concerned with the percentage of HIS time that is spent on various behaviors NOT the percentage of the group's time.

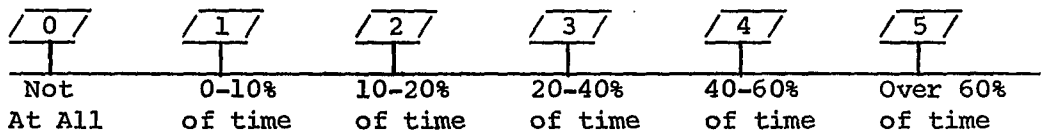
1. Members point out how certain members have characteristic patterns of interacting OR members ask for or give reactions to specific behaviors of a member.



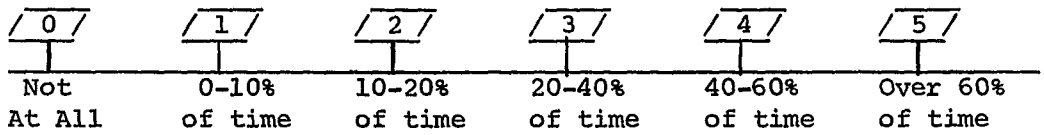
2. Members express negative, critical or hostile feelings toward the group and its activities.



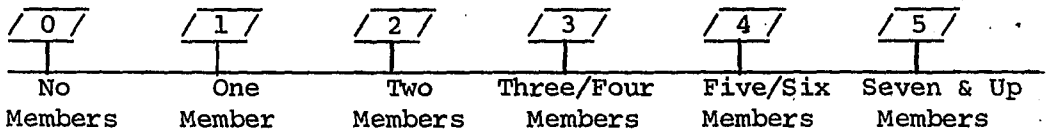
3. Group leader attempts to stimulate interaction by probing and sponsoring members about reacting to or showing awareness of each other with members responding perfunctorily or not at all.



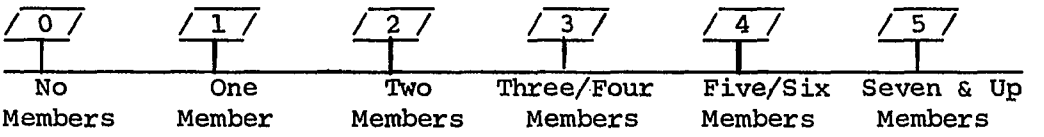
4. Group leader gives impressions or reactions he has to another member.



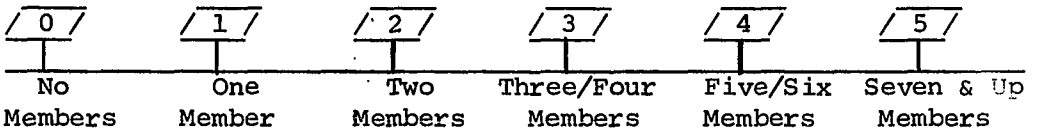
5. Members point out characteristic malfunctions or collaborative avoidances of certain topics or other inadequacies in the group process which prevent the group from serving the therapeutic needs of the members.



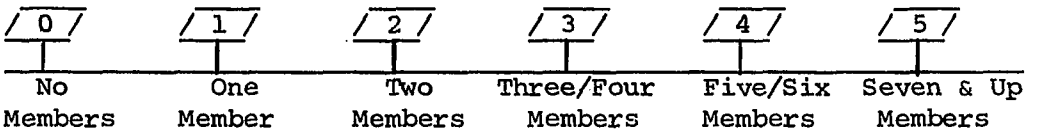
6. Members discuss certain non-personal topic areas that have significance for understanding their problems but with the focus remaining on the areas under discussion.



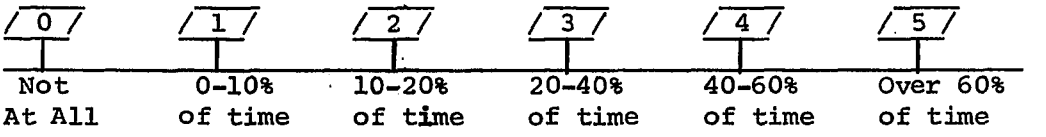
7. Members do not accept and are critical of a member's formulations or reports of his past out-group behavior or way-of-life, OR a member defends his past, out-group behavior or way-of-life.



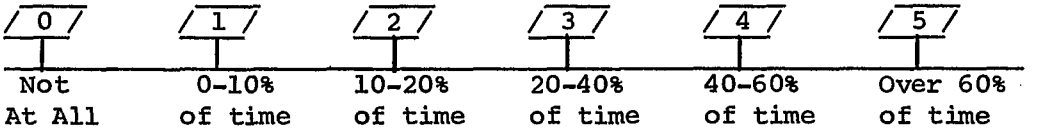
8. Group leader sponsors, probes or otherwise encourages members to reality test a certain member's formulation of his problem and to point out omissions and contradictions in member's presentation of his problem.



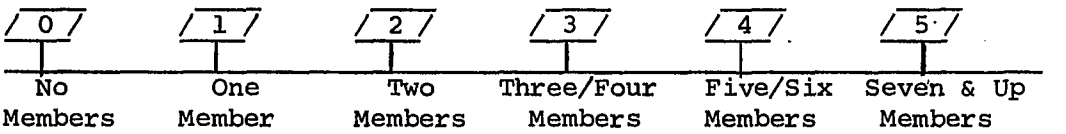
9. Group leader sponsors, probes or otherwise encourages members to discuss how the group operates or might function.



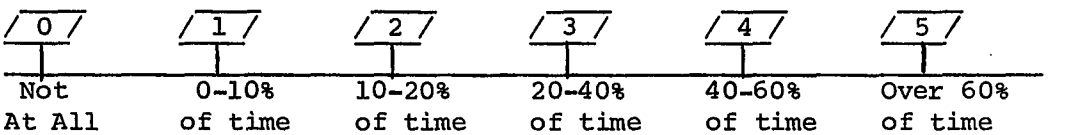
10. Members are reluctant to participate and do not contribute, to the interaction.



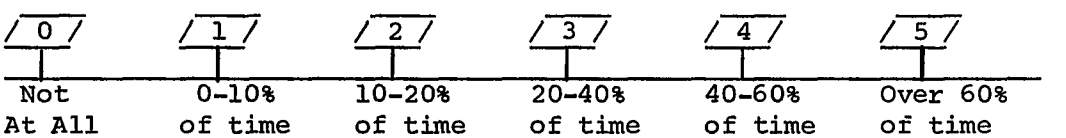
11. Members express negative, or hostile feelings or delusional ideas about certain conditions, institutions or events.



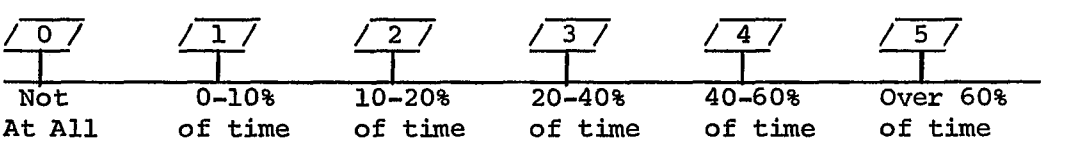
12. Group leader socialized informally with the group by talking about current events, gossip and other everyday subjects.



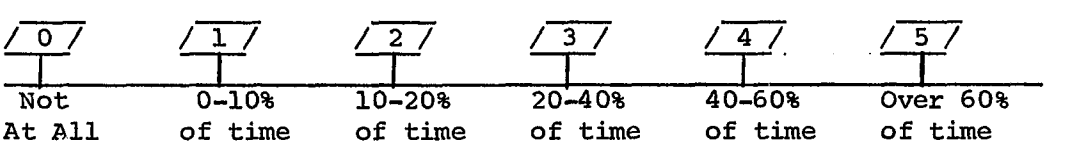
13. Group leader points out characteristic malfunctions or collaborative avoidances of certain topics or other inadequacies in the group process which prevent the group from serving the therapeutic needs of the members.



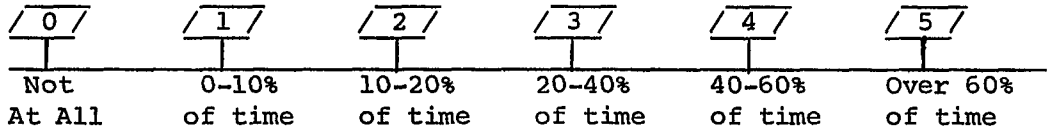
14. Group leader attempts to stimulate interaction by probing and sponsoring members about the group with members responding perfunctorily or not at all.



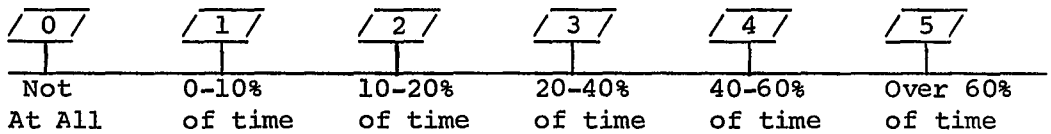
15. Members do not accept and are critical of a member's formulations or reports of his past or out-group behavior or way-of-life, OR a member defends his past, out-group behavior or way-of-life.



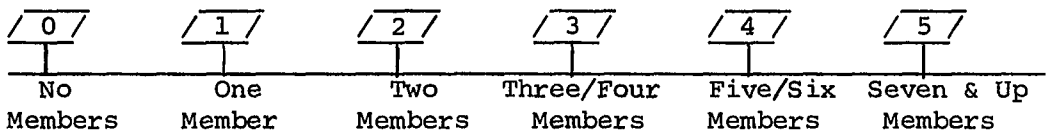
16. Members socialize informally by good-natured give-and-take and joking, indulging in inside-jokes or offering pairing and support.



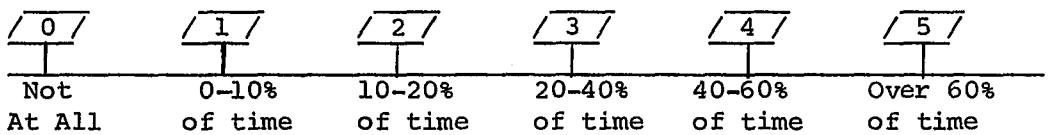
17. Members socialize informally by talking about current events, gossip and other everyday subjects.



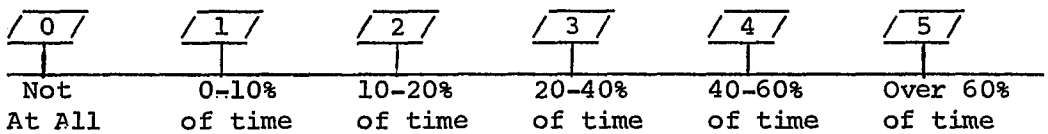
18. Members discuss how the group operates or might function.



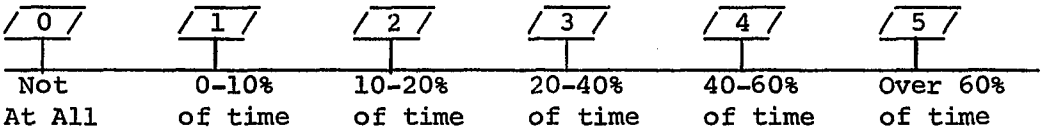
19. Group leader attempts to stimulate interaction by proving and sponsoring members about themselves; their family, educational background, military experience, etc.



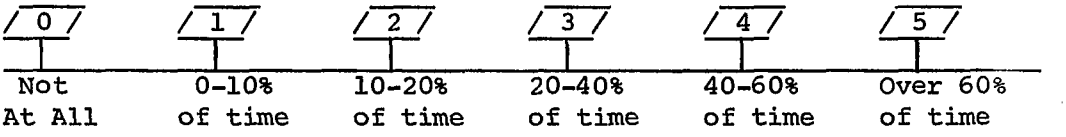
20. Members give impressions or reactions they have to another member.



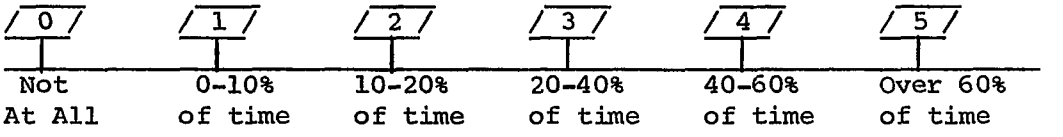
21. Group leader socializes informally by talking about himself or other members in terms of family and educational background; military experience, etc.



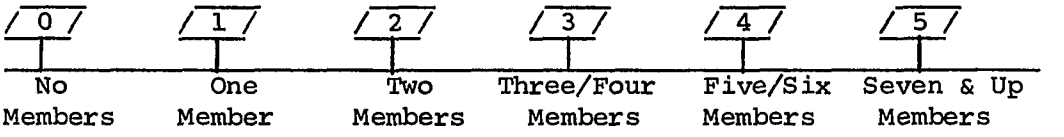
22. Group leader sponsors, probes or otherwise encourages members to discuss certain non-personal topic areas that have significance for understanding their problems with the focus remaining on the area under discussion.



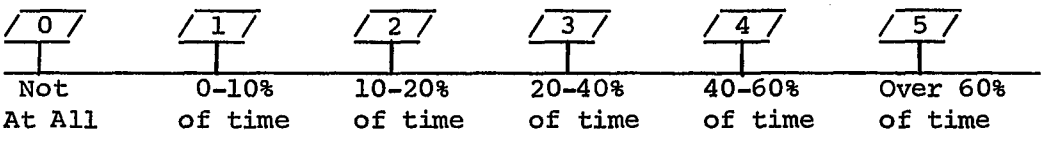
23. Group leader sponsors, probes or otherwise encourages members to indulge in ribbing, embarrassing, needling or verbally attacking others.



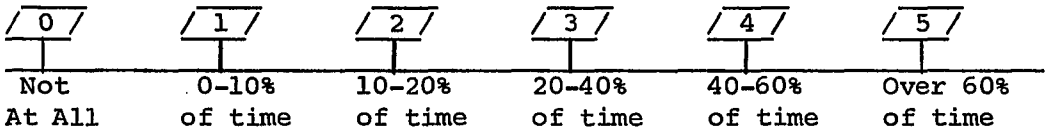
24. Members express negative, critical or hostile feelings toward the group and its activities.



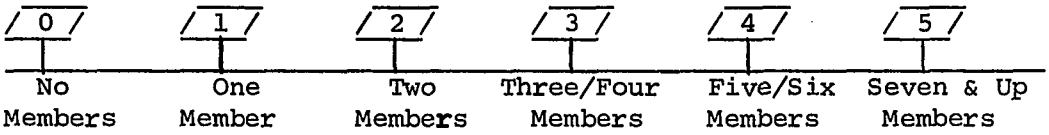
25. Members point out in a topic discussion of non-personal matters, conclusions or insights derived from the discussion which have implications for the members' personal problems.



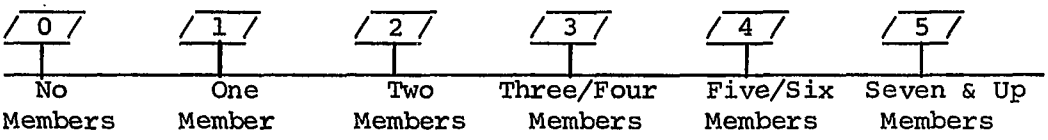
26. Group leader indulges in ribbing, embarrassing, needling or verbally attacking others.



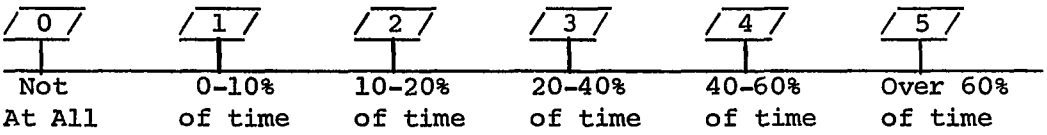
27. Members socialize informally by talking about the group and its activities.



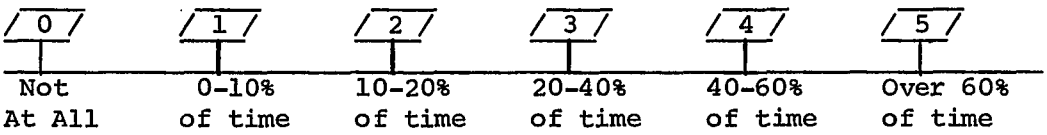
28. Members socialize informally by discussing themselves; their family and educational background, military experience, etc.



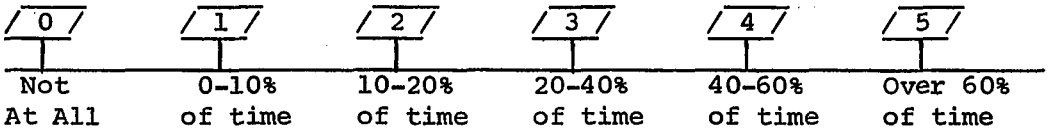
29. Group leader sponsors, probes or otherwise encourages members to express negative, critical or hostile feelings toward the group and its activities.



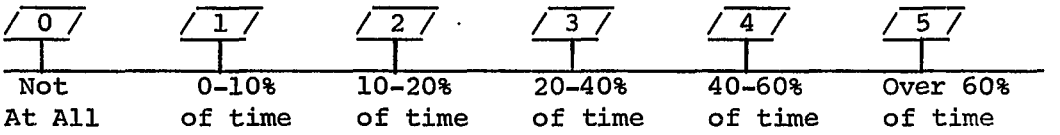
30. Group leader attempts to stimulate interaction by probing and sponsoring members about discussing current events, gossip and other everyday subjects.



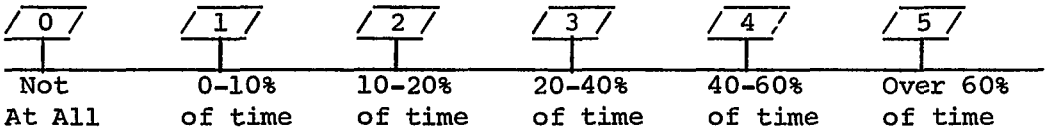
31. Group leader discusses the manner in which the group operates or might function.



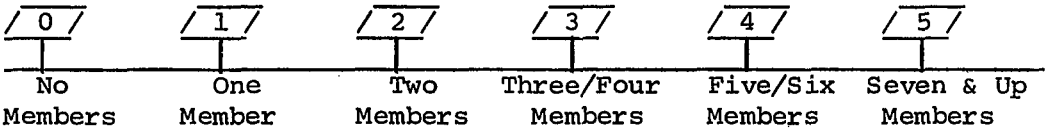
32. Members express negative, or hostile feelings or delusional ideas about certain conditions, institutions or events.



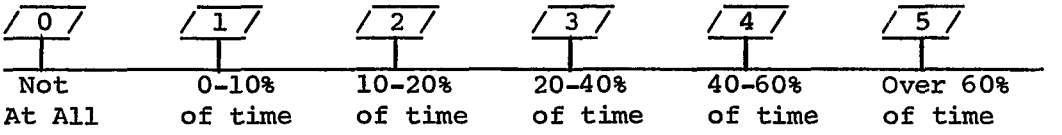
33. Members point out characteristic malfunctions of collaborative avoidances of certain topics or other inadequacies in the group process which prevent the group from serving the therapeutic needs of the members.



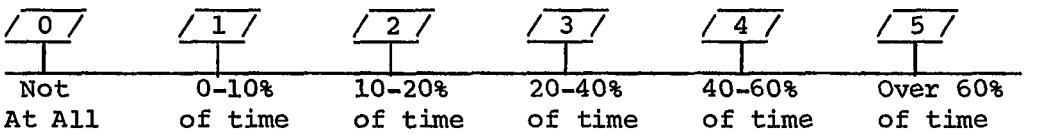
34. Members give impressions or reactions they have to another member.



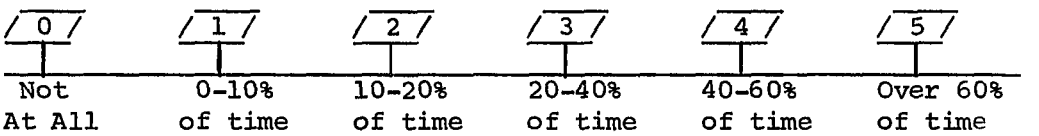
35. Group leader socializes informally by good-natured give-and-take and joking, indulging in inside-jokes or offering pairing and support.



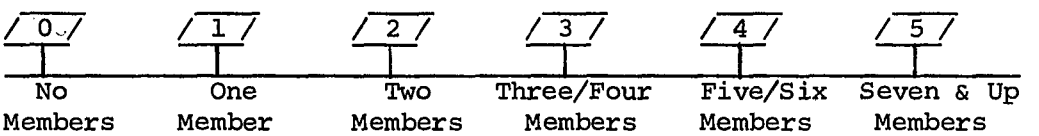
36. Group leader points out in a topic discussion of non-personal matters, conclusions, or insights derived from the discussion which have implications for the members' personal problems.



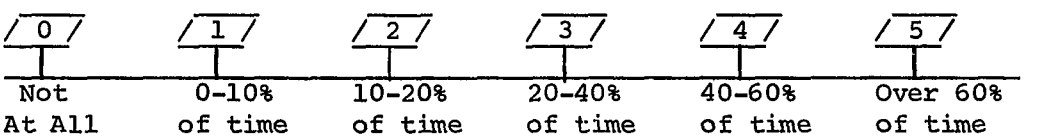
37. Group leader expresses negative or critical feelings about the group and its activities.



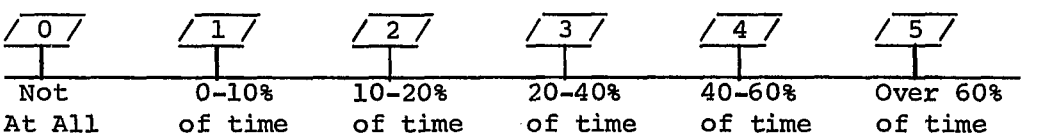
38. Members point out in a topic discussion of non-personal matters, conclusions or insights derived from the discussion which have implications for the members' personal problems.



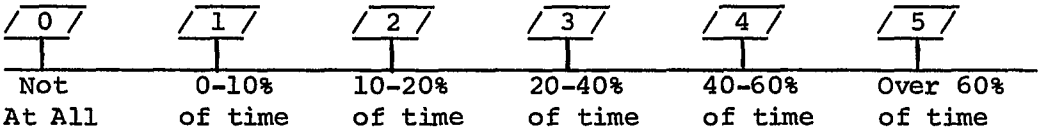
39. Group leader sponsors, probes or otherwise encourages members to be critical of a member's formulations or reports of his past, way-of-life or out-group behavior.



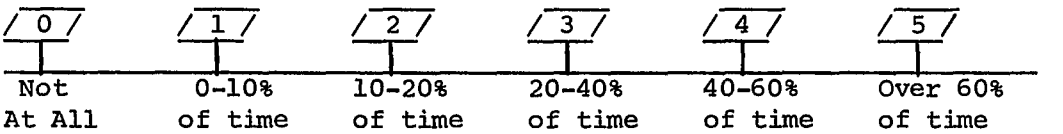
40. Group leader sponsors, probes or otherwise encourages members to point out characteristic malfunctions or collaborative avoidances of certain topics or other inadequacies in the group process which prevent the group from serving the therapeutic needs of the members.



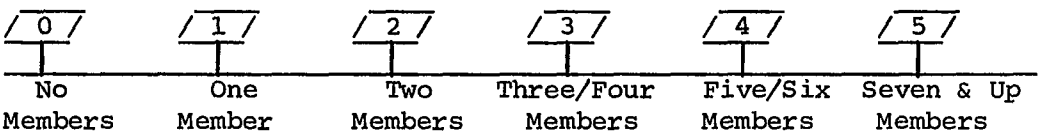
41. Members explore aspects of a certain member's problem.



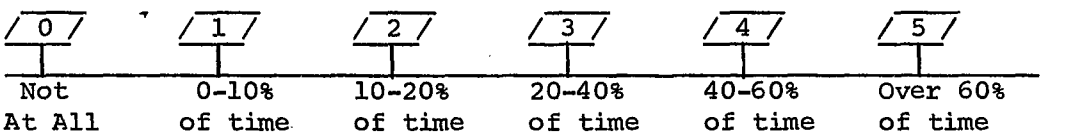
42. Members indulge in ribbing, embarrassing, needling or verbally attacking others.



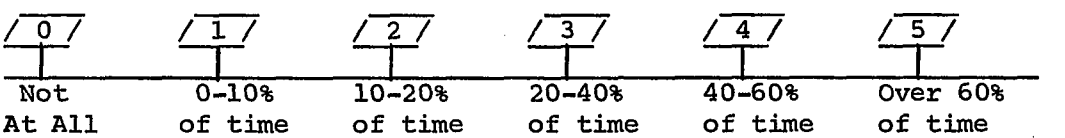
43. Members reality test a certain member's formulation of his problem by pointing out distortions, omissions or contradictions in member's presentation of his problem.



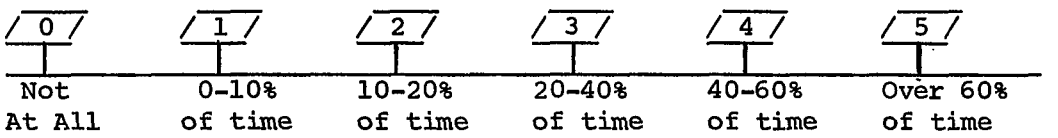
44. Members discuss how the group operates or might function.



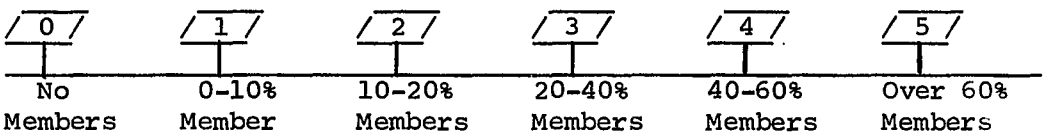
45. Group leader sponsors, probes or otherwise encourages members to socialize informally by getting them to discuss themselves; their family and educational background, military experience, etc.



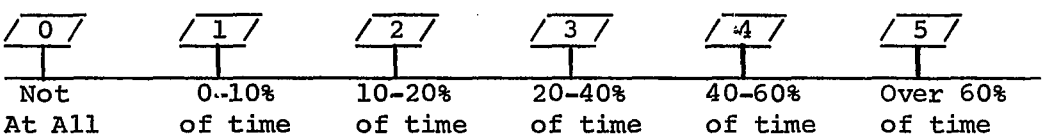
46. Group leader points out how certain members have characteristic patterns of interaction, OR group leader asks for or gives reactions to specific behaviors of a member.



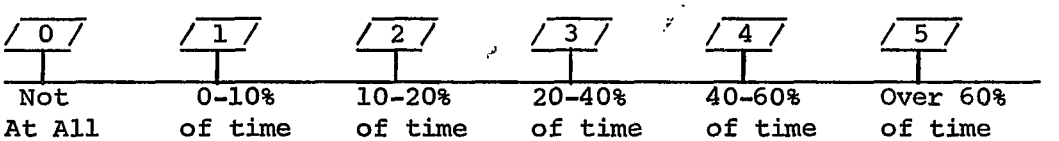
47. Members socialize informally by good-natured give-and-take and joking, indulging in inside-jokes or offering pairing and support.



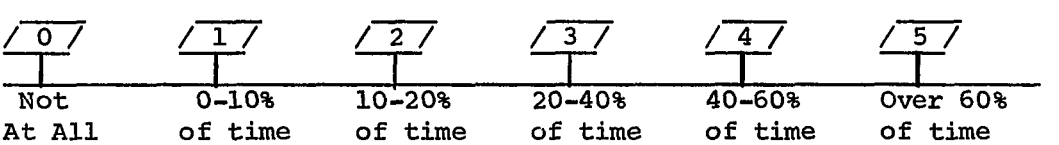
48. Group leader socializes informally by talking about the group.



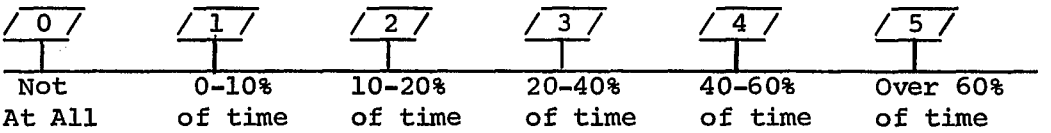
49. Group leader sponsors, probes or otherwise encourages members to explore aspects of a certain member's problem.



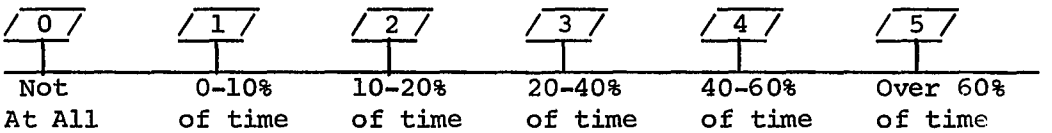
50. The group is silent or uncommunicative.



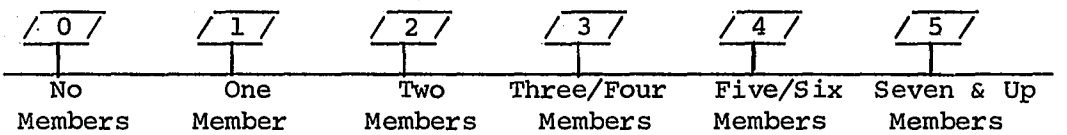
51. Members point out how certain members have characteristic patterns of interacting, OR members ask for or give reactions to specific behaviors of a member.



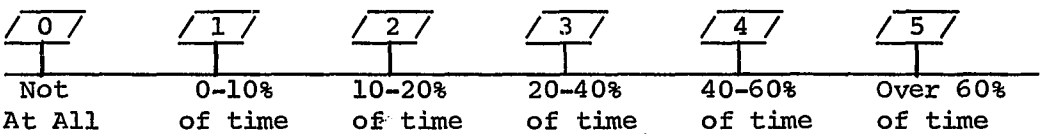
52. Group leader discusses non-personal topic areas that are relevant to problems of the group members.



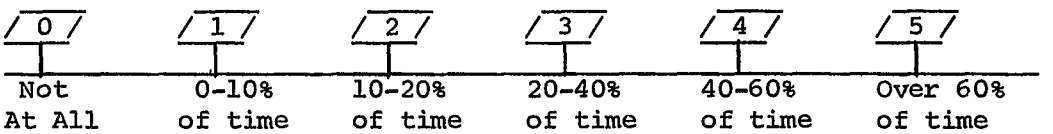
53. Members indulge in ribbing, embarrassing, needling or verbally attacking others.



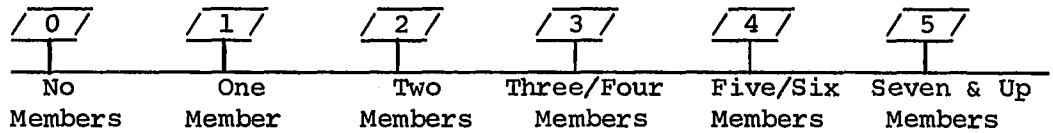
54. Group leader sponsors, probes or otherwise encourages members to point out how certain members have characteristic patterns of interacting, OR to ask for or give reactions to specific behaviors of a member.



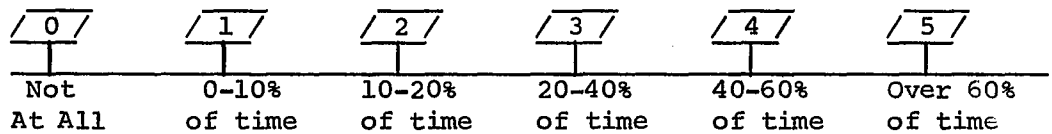
55. Group leader sponsors, probes or otherwise encourages members to point out in a topic discussion of non-personal matters conclusions or insights they may have derived from the discussion which have implications for the member's personal problems.



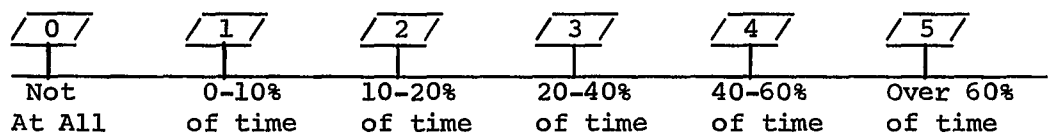
56. Members are reluctant to participate and do not contribute to the interaction.



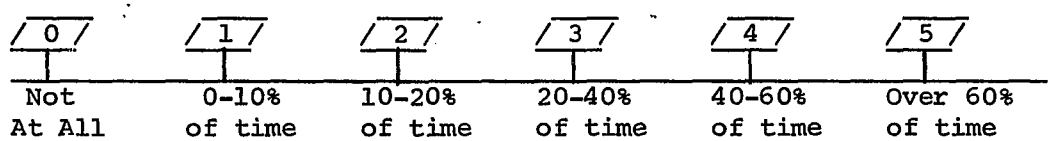
57. Group leader is critical of a member's formulation or report of his past, out-group behavior or way-of-life, OR the group leader defends his past, out-group behavior or way-of-life.



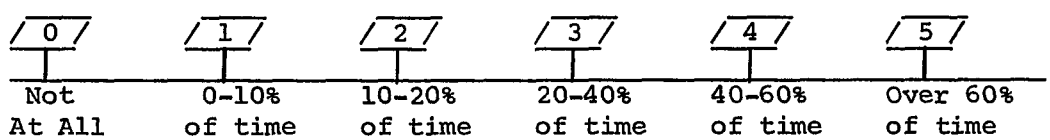
58. Members reality test a certain member's formulation of his problem by pointing out distortions, omissions or contradictions in member's presentation of his problem.



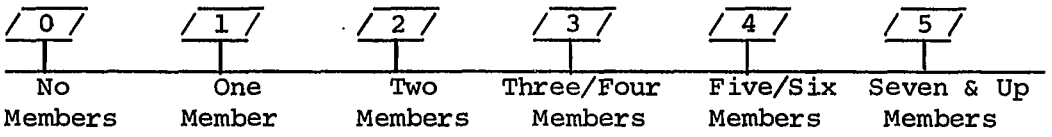
59. Group leader explores aspects of a certain member's problem.



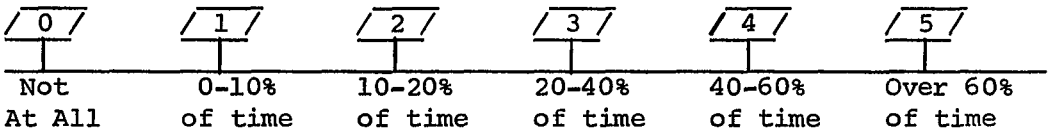
60. Members socialize informally by discussing themselves; their family and educational background, military experience, etc.



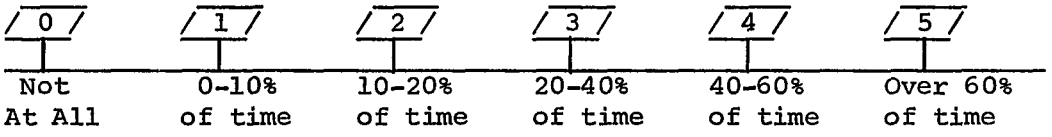
61. Members socialize informally talking about current events, gossip and other everyday subjects.



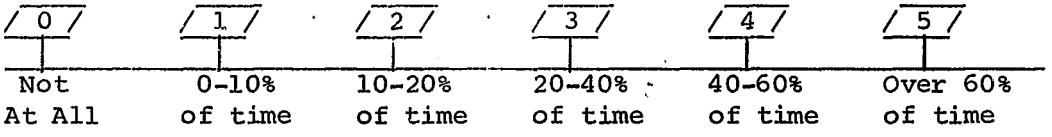
62. Group leader expresses negative or hostile feelings about certain conditions, institutions or events.



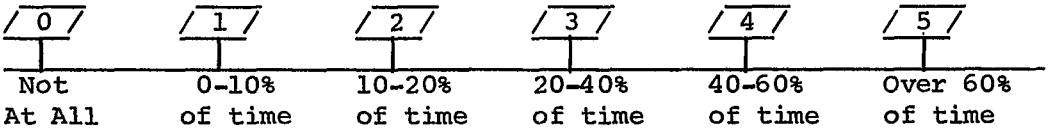
63. Group leader sponsors, probes or otherwise encourages members to socialize informally by getting them to talk about the group and its activities.



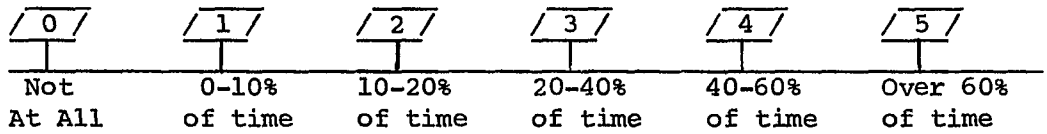
64. Leader participates and contributes to the group interaction.



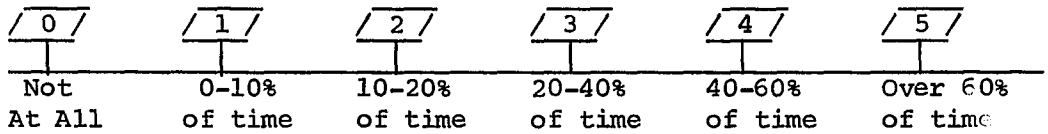
65. Group leader sponsors, probes or otherwise encourages members to socialize informally by getting them to indulge in good-natured give-and-take, joking and inside-jokes, or offering support and pairing.



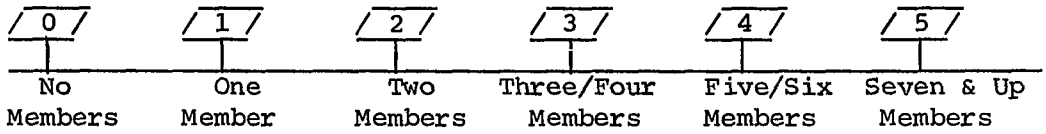
66. Group leader sponsors, probes or otherwise encourages members to socialize informally by getting them to talk about current events, gossip and other everyday subjects.



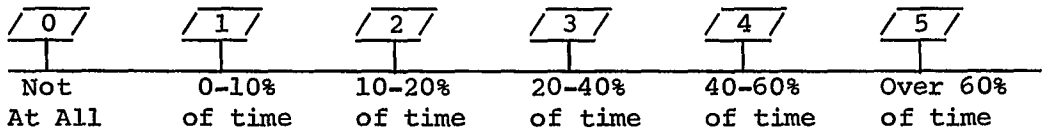
67. Members socialize informally by talking about the group and its activities.



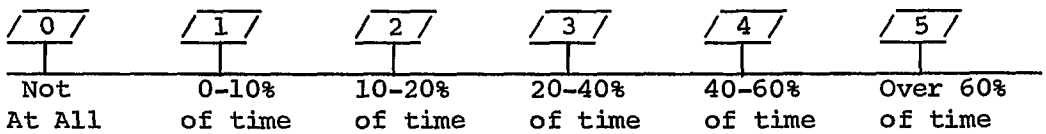
68. Members explore aspects of a certain member's problems.



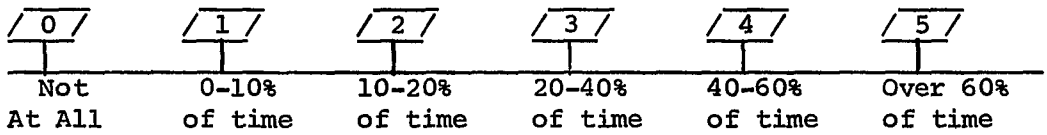
69. Group leader sponsors, probes or otherwise encourages members to express negative feelings or delusional ideas about certain conditions, institutions or everyday events.



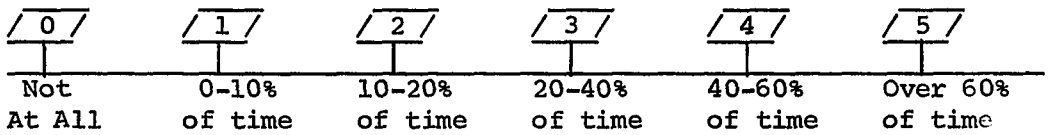
70. Group leader reality tests a member's formulations of his problem by pointing out distortions, omissions and contradictions in member's presentation of his problem.



71. Members discuss certain non-personal topic areas that have significance for understanding their problems but with the focus remaining on the area under discussion.



72. Group leader sponsors, probes or otherwise encourages members to give impressions or reactions they have to another member.



APPENDIX E

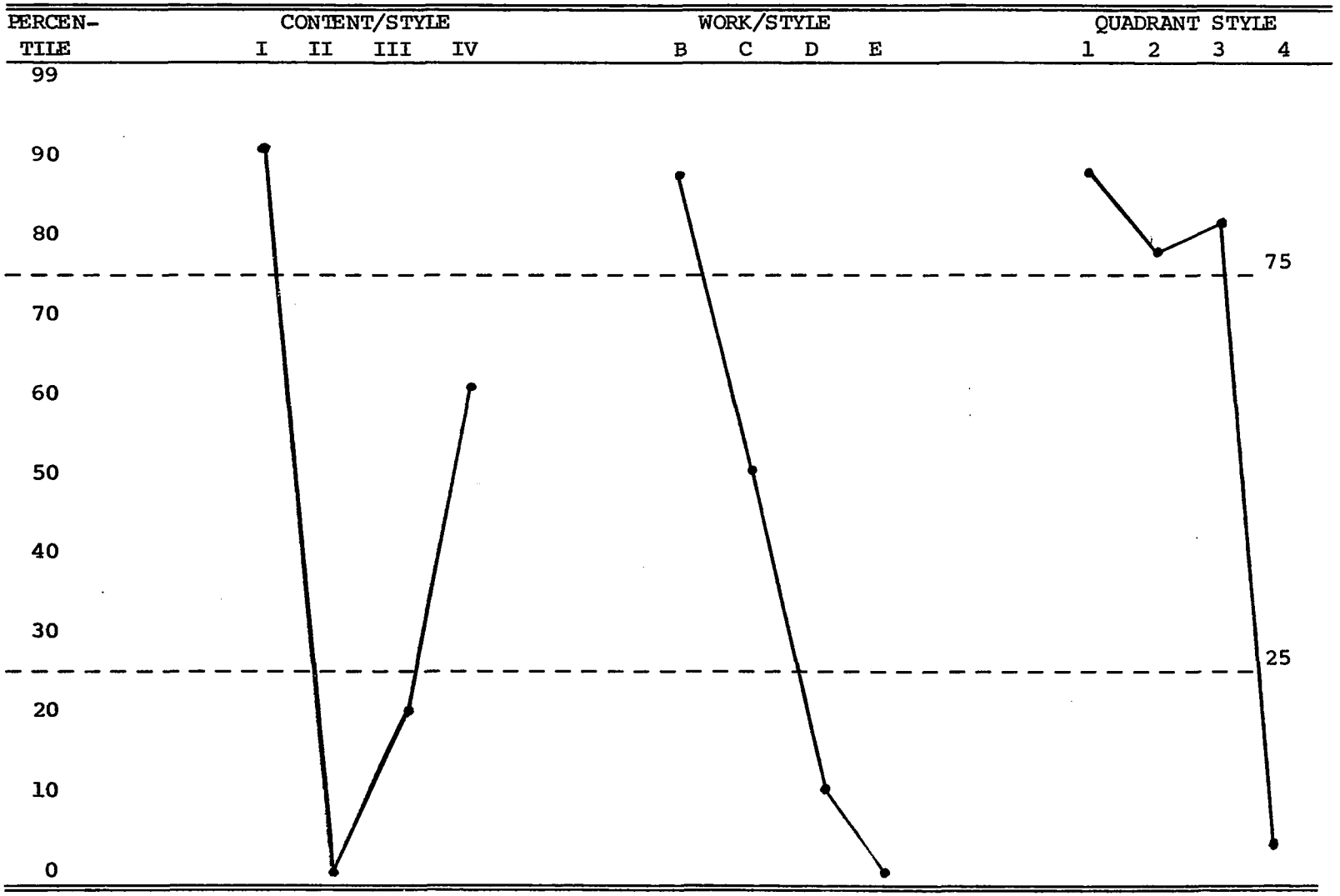
PERCENTILE RATINGS AND PSYCHOGRAMS FOR SEVEN EXPERIMENTAL GROUPS

CONTENT/STYLE, WORK/STYLE AND QUADRANT PERCENTILE RANK FOR THE EXPERIMENTAL GROUPS

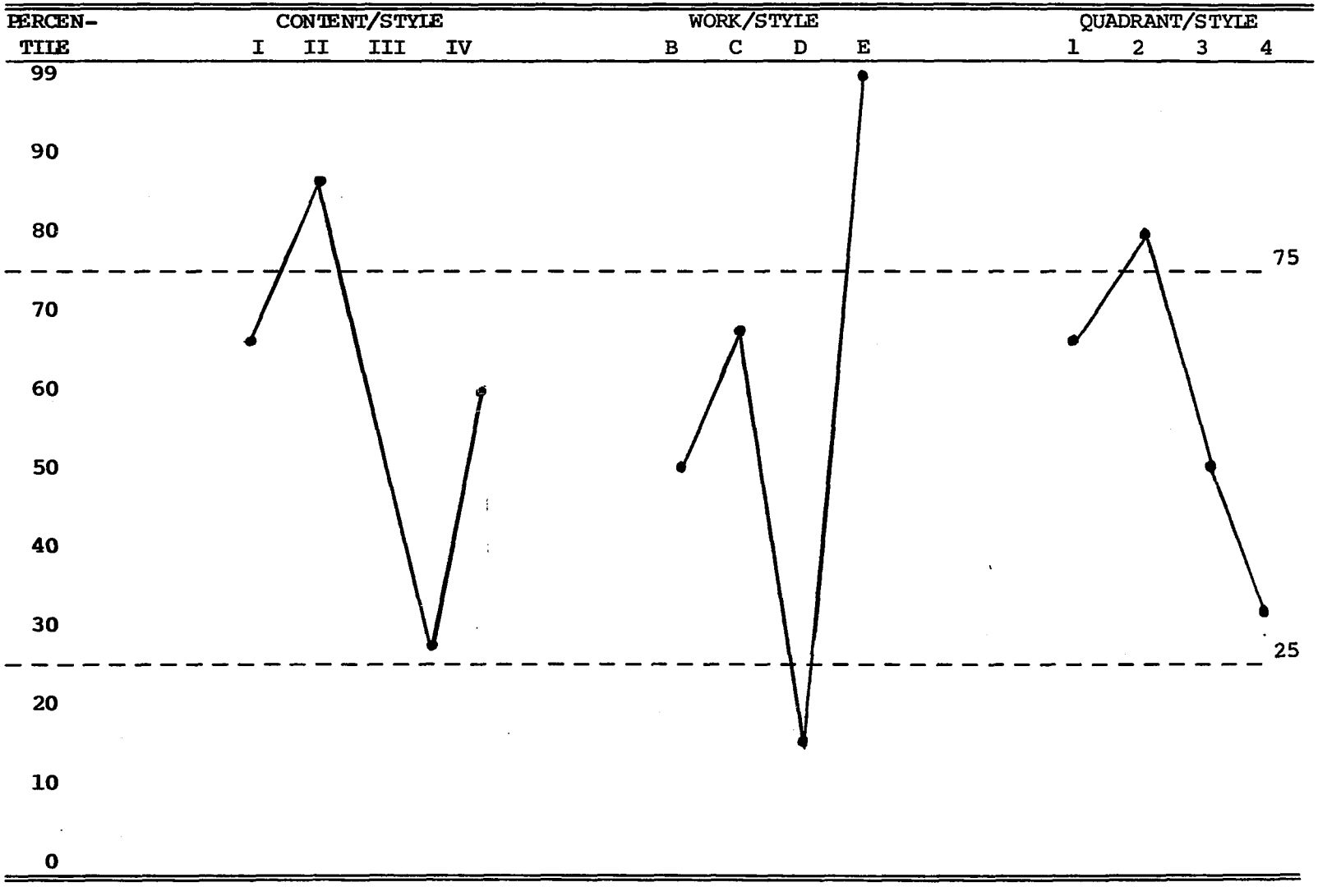
GROUP	CONTENT/STYLE I	II	III	IV	WORK/STYLE B	C	D	E	QUADRANT/STYLE 1	2	3	4
A	92	0	20	59	87	50	9	0	86	77	79	5
B	64	83	29	59	51	66	11	97	63	80	50	31
C	49	0	43	75	31	80	11	99	35	49	69	55
D	79	0	29	63	60	55	19	95	63	78	55	34
E	92	0	28	56	73	68	8	93	86	65	65	17
F	66	0	38	63	33	73	10	99	48	78	59	43
G	61	0	43	71	30	75	13	99	0	65	60	55

Norms from Hill (1965).

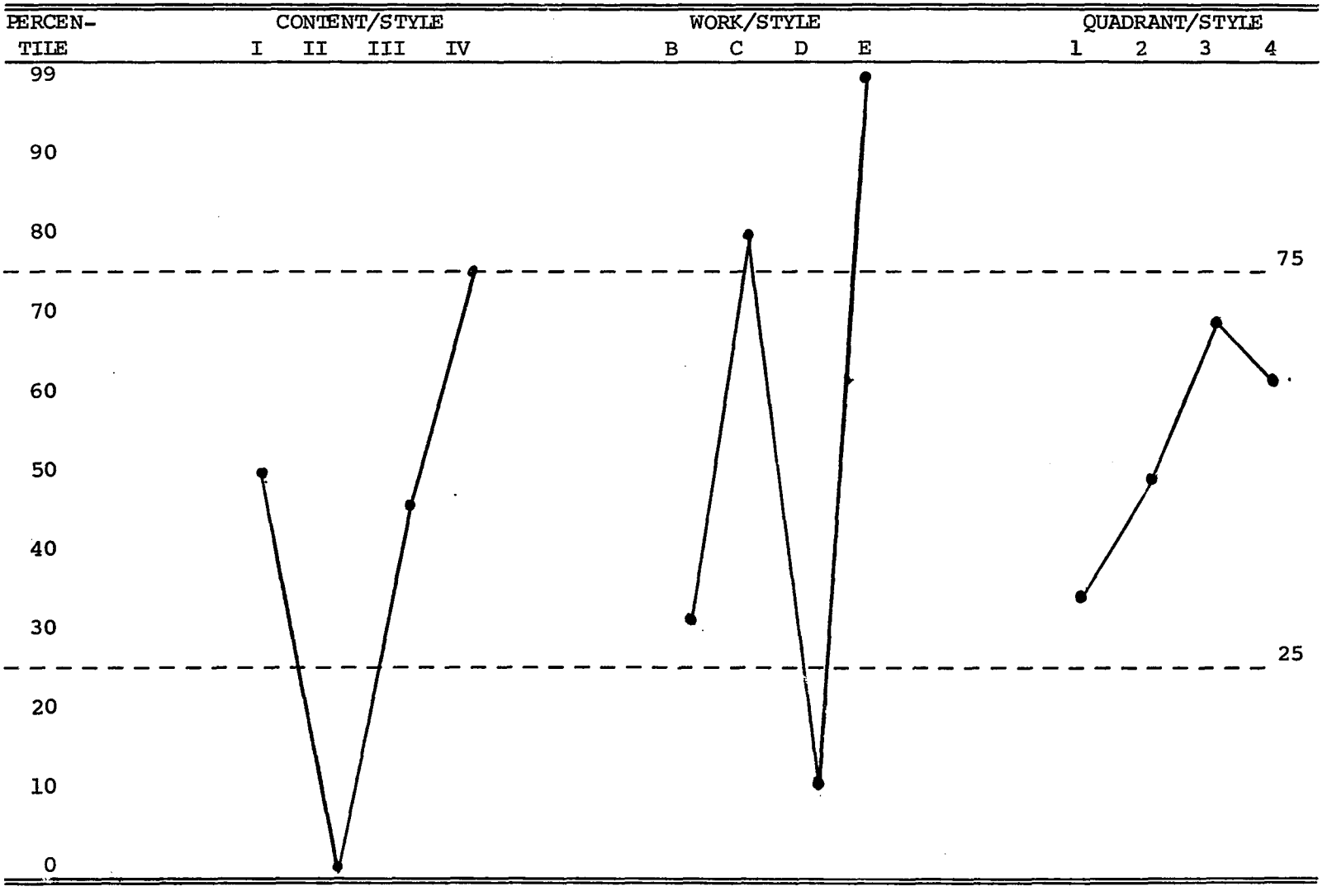
CONTENT/STYIE, WORK/STYIE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP A



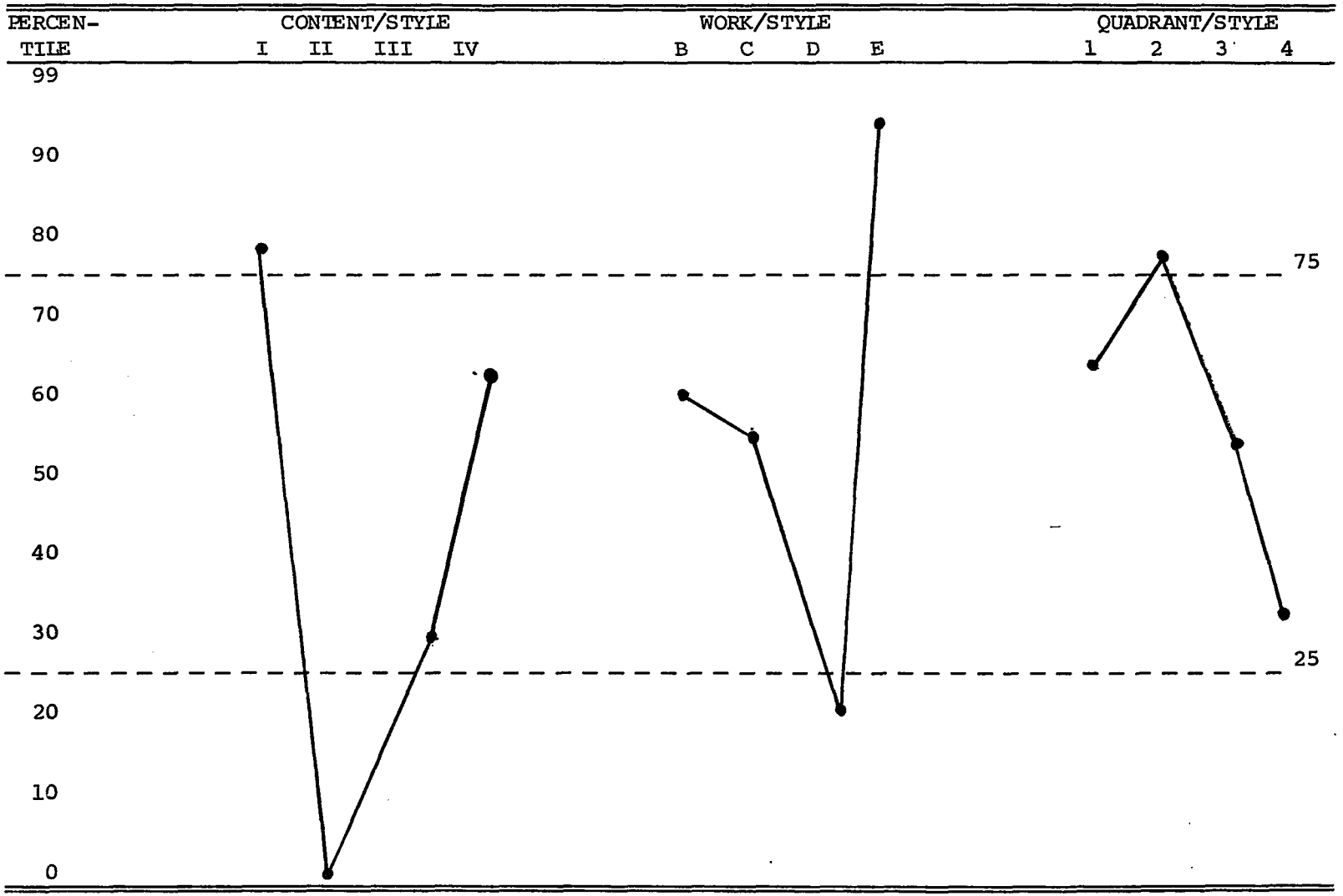
CONTENT/STYLE, WORK/STYLE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP B



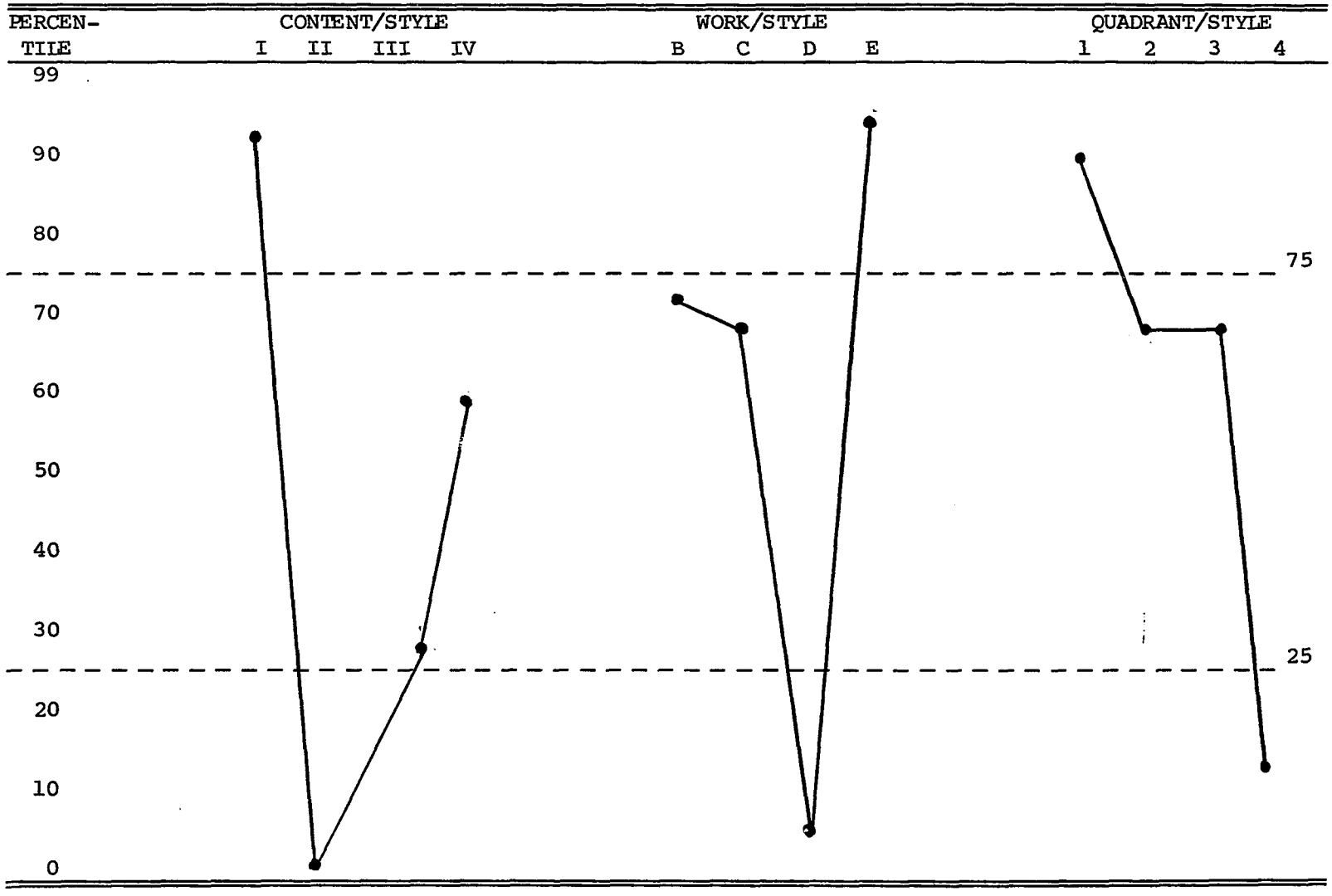
CONTENT/STYLE, WORK/STYLE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP C



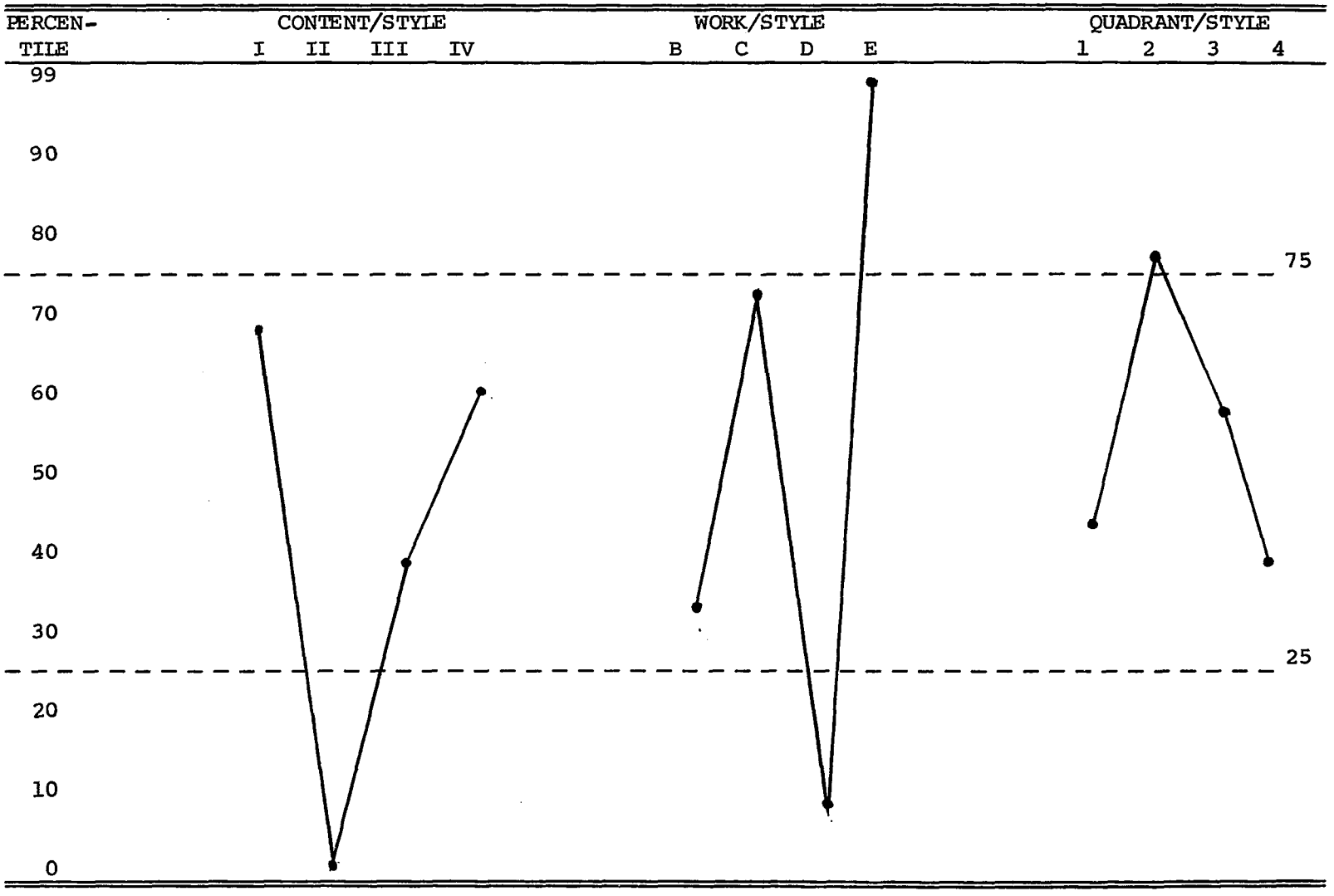
CONTENT/STYLE, WORK/STYLE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP D



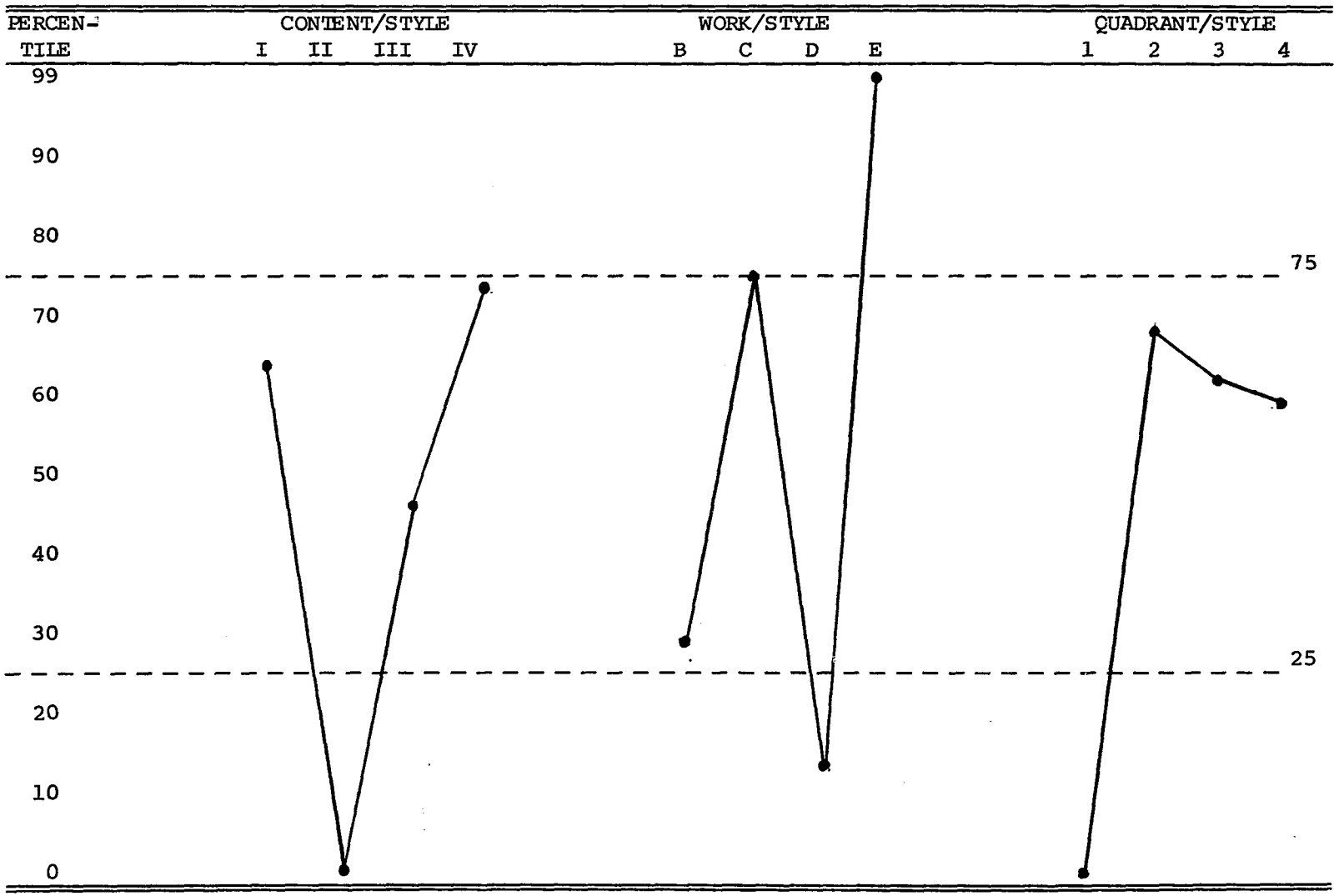
CONTENT/STYLE, WORK/STYLE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP E



CONTENT/STYLE, WORK/STYLE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP F



CONTENT/STYLE, WORK/STYLE, AND QUADRANT LOADING IN PERCENTILE RANK FOR GROUP G



APPENDIX F

EXPERIMENTAL GROUP SUBJECTS AND PRE- POST-TEST DIFFERENCE SCORES ON THE INDEX OF ADJUSTMENT AND VALUES AND DOGMATISM SCALE

EXPERIMENTAL GROUP SUBJECTS AND PRE- POST-TEST DIFFERENCE SCORES
ON THE INDEX OF ADJUSTMENT AND VALUES AND DOGMATISM SCALE

GROUP	SUBJECT	CLASSIFICATION	IAV PRE- POST- DIFFERENCE SCORES	D- SCALE PRE- POST- DIFFERENCE SCORES
A	Female	Senior	- 7	- 4
	Female	Sophomore	- 4	-13
	Male	Junior	- 3	-43
	Female	Junior	-16	+ 2
	Male	Senior	+ 4	+11
	Male	Junior	+10	+ 4
B	Male	Freshman	-17	- 6
	Male	Junior	-24	-24
	Female	Senior	- 2	+30
	Male	Sophomore	- 9	- 6
	Male	Graduate	- 9	- 4
	Male	Senior	+ 6	- 3
C	Female	Sophomore	- 6	-29
	Male	Sophomore	- 1	+ 9
	Male	Junior	-20	-21
	Female	Junior	-23	- 3
	Female	Senior	- 8	+ 2
	Male	Senior	+ 2	+14
D	Female	Sophomore	- 9	-18
	Female	Sophomore	-13	- 9
	Male	Graduate	- 1	+ 4
	Female	Junior	+ 4	- 1

APPENDIX F (continued)

GROUP	SUBJECT	CLASSIFICATION	IVA PRE- POST- DIFFERENCE SCORES	D- SCALE PRE- POST- DIFFERENCE SCORES
E	Female	Sophomore	+ 1	-39
	Male	Sophomore	-12	+11
	Male	Sophomore	+12	+17
	Female	Sophomore	- 6	+ 1
	Male	Junior	+ 8	+19
F	Female	Freshman	- 7	+16
	Female	Freshman	-77	+18
	Female	Freshman	-25	-34
	Male	Junior	-44	+12
	Female	Senior	-15	+ 4
	Male	Sophomore	-19	- 6
G	Female	Senior	-25	-16
	Female	Freshman	-20	+ 2
	Male	Senior	-25	+ 7
	Female	Sophomore	- 5	- 4
	Male	Junior	-10	- 3
	Female	Junior	- 7	- 5

APPENDIX G

CONTROL GROUP SUBJECTS AND PRE- POST-TEST DIFFERENCE SCORES ON THE INDEX OF ADJUSTMENT AND VALUES AND DOGMATISM SCALE

CONTROL GROUP SUBJECTS AND PRE- POST-TEST DIFFERENCE SCORES
ON THE INDEX OF ADJUSTMENT AND VALUES AND DOGMATISM SCALE

SUBJECT	CLASSIFICATION	IAV PRE- POST- DIFFERENCE SCORES	D- SCALE PRE- POST- DIFFERENCE SCORES
Male	Sophomore	- 7	+ 8
Male	Junior	- 4	+ 6
Female	Sophomore	- 9	- 7
Female	Freshman	+ 6	+ 2
Female	Sophomore	- 7	+15
Male	Freshman	+ 5	+16
Male	Sophomore	+ 9	-11
Female	Sophomore	- 1	- 5
Female	Freshman	-25	-10
Female	Sophomore	-10	0
Female	Sophomore	+ 3	+ 2
Female	Junior	+ 5	-21
Female	Senior	- 3	+19
Female	Junior	-14	- 9
Male	Senior	+ 3	+ 7
Male	Sophomore	- 3	- 3
Male	Sophomore	- 8	-15

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